

# UNIVERSAL SERVICE: REFORMING THE HIGH-COST FUND

---

## HEARING BEFORE THE SUBCOMMITTEE ON COMMUNICATIONS, TECHNOLOGY, AND THE INTERNET OF THE COMMITTEE ON ENERGY AND COMMERCE HOUSE OF REPRESENTATIVES ONE HUNDRED ELEVENTH CONGRESS

FIRST SESSION

MARCH 12, 2009

**Serial No. 111-13**



Printed for the use of the Committee on Energy and Commerce  
*energycommerce.house.gov*

U.S. GOVERNMENT PRINTING OFFICE

67-101 PDF

WASHINGTON : 2012

---

For sale by the Superintendent of Documents, U.S. Government Printing Office  
Internet: bookstore.gpo.gov Phone: toll free (866) 512-1800; DC area (202) 512-1800  
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

## COMMITTEE ON ENERGY AND COMMERCE

HENRY A. WAXMAN, California  
*Chairman*

JOHN D. DINGELL, Michigan  
*Chairman Emeritus*

EDWARD J. MARKEY, Massachusetts

RICK BOUCHER, Virginia

FRANK PALLONE, Jr., New Jersey

BART GORDON, Tennessee

BOBBY L. RUSH, Illinois

ANNA G. ESHOO, California

BART STUPAK, Michigan

ELIOT L. ENGEL, New York

GENE GREEN, Texas

DIANA DEGETTE, Colorado

*Vice Chairman*

LOIS CAPPS, California

MICHAEL F. DOYLE, Pennsylvania

JANE HARMAN, California

TOM ALLEN, Maine

JANICE D. SCHAKOWSKY, Illinois

HILDA L. SOLIS, California

CHARLES A. GONZALEZ, Texas

JAY INSLEE, Washington

TAMMY BALDWIN, Wisconsin

MIKE ROSS, Arkansas

ANTHONY D. WEINER, New York

JIM MATHESON, Utah

G.K. BUTTERFIELD, North Carolina

CHARLIE MELANCON, Louisiana

JOHN BARROW, Georgia

BARON P. HILL, Indiana

DORIS O. MATSUI, California

DONNA M. CHRISTENSEN, Virgin Islands

KATHY CASTOR, Florida

JOHN P. SARBANES, Maryland

CHRISTOPHER MURPHY, Connecticut

ZACHARY T. SPACE, Ohio

JERRY McNERNEY, California

BETTY SUTTON, Ohio

BRUCE BRALEY, Iowa

PETER WELCH, Vermont

JOE BARTON, Texas

*Ranking Member*

RALPH M. HALL, Texas

FRED UPTON, Michigan

CLIFF STEARNS, Florida

NATHAN DEAL, Georgia

ED WHITFIELD, Kentucky

JOHN SHIMKUS, Illinois

JOHN B. SHADEGG, Arizona

ROY BLUNT, Missouri

STEVE BUYER, Indiana

GEORGE RADANOVICH, California

JOSEPH R. PITTS, Pennsylvania

MARY BONO MACK, California

GREG WALDEN, Oregon

LEE TERRY, Nebraska

MIKE ROGERS, Michigan

SUE WILKINS MYRICK, North Carolina

JOHN SULLIVAN, Oklahoma

TIM MURPHY, Pennsylvania

MICHAEL C. BURGESS, Texas

MARSHA BLACKBURN, Tennessee

PHIL GINGREY, Georgia

STEVE SCALISE, Louisiana

SUBCOMMITTEE ON COMMUNICATIONS, TECHNOLOGY, AND THE INTERNET

RICK BOUCHER, Virginia

*Chairman*

EDWARD J. MARKEY, Massachusetts

BART GORDON, Tennessee

BOBBY L. RUSH, Illinois

ANNA G. ESHOO, California

BART STUPAK, Michigan

DIANA DeGETTE, Colorado

MICHAEL F. DOYLE, Pennsylvania

JAY INSLEE, Washington

ANTHONY D. WEINER, New York

G.K. BUTTERFIELD, North Carolina

CHARLIE MELANCON, Louisiana

BARON P. HILL, Indiana

DORIS O. MATSUI, California

DONNA M. CHRISTENSEN, Virgin Islands

KATHY CASTOR, Florida

CHRISTOPHER S. MURPHY, Connecticut

ZACHARY T. SPACE, Ohio

JERRY McNERNEY, California

PETER WELCH, Vermont

JOHN D. DINGELL, Michigan (ex officio)

FRED UPTON, Michigan

*Ranking Member*

J. DENNIS HASTERT, Illinois

CLIFF STEARNS, Florida

NATHAN DEAL, Georgia

BARBARA CUBIN, Wyoming

JOHN SHIMKUS, Illinois

HEATHER WILSON, New Mexico

CHARLES W. "CHIP" PICKERING,

Mississippi

VITO FOSELLA, New York

GEORGE RADANOVICH, California

MARY BONO MACK, California

GREG WALDEN, Oregon

LEE TERRY, Nebraska

MIKE FERGUSON, New Jersey





## CONTENTS

	Page
Hon. Rick Boucher, a Representative in Congress from the Commonwealth of Virginia, opening statement .....	1
Prepared statement .....	4
Hon. Cliff Stearns, a Representative in Congress from the State of Florida, opening statement .....	6
Hon. Henry A. Waxman, a Representative in Congress from the State of California, opening statement .....	10
Prepared statement .....	12
Hon. Zachary T. Space, a Representative in Congress from the State of Ohio, prepared statement .....	17
Hon. John D. Dingell, a Representative in Congress from the State of Michigan, prepared statement .....	220

### WITNESSES

Steve Davis, Senior Vice President, Public Policy and Government Relations, Qwest Corporation .....	19
Prepared statement .....	22
Answers to submitted questions .....	237
Joel E. Lubin, Vice President, Public Policy, AT&T .....	41
Prepared statement .....	43
Answers to submitted questions .....	240
Leroy T. Carlson, Jr., Chairman of the Board, U.S. Cellular .....	63
Prepared statement .....	65
Mark Gailey, President and General Manager, Totah Communications .....	85
Prepared statement .....	87
Derek Turner, Research Director, Free Press .....	93
Prepared statement .....	95
Answers to submitted questions .....	244
Tom Tauke, Executive Vice President, Public Affairs, Policy and Communications, Verizon .....	122
Prepared statement .....	124
Answers to submitted questions .....	248
Tom Gerke, Chief Executive Officer, Embarq .....	135
Prepared statement .....	137
Gregory Hale, General Manager, Logan Telephone Cooperative, Inc. ....	142
Prepared statement .....	144
Scott Wallsten, Vice President for Research and Senior Fellow, The Technology Policy Institute .....	169
Prepared statement .....	172

### SUBMITTED MATERIAL

Statement of Jerry Elig, Ph.D., Senior Research Fellow, Mercatus Center, George Mason University, submitted by Mr. Boucher .....	222
Statement of the American Homeowners Grassroots Alliance, submitted by Mr. Boucher .....	231



## **UNIVERSAL SERVICE: REFORMING THE HIGH-COST FUND**

---

**THURSDAY, MARCH 12, 2009**

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON COMMUNICATIONS, TECHNOLOGY,  
AND THE INTERNET,  
COMMITTEE ON ENERGY AND COMMERCE,  
*Washington, DC.*

The subcommittee met, pursuant to call, at 10:05 a.m., in Room 2123 of the Rayburn House Office Building, Hon. Rick Boucher (chairman) presiding.

Members present: Representatives Boucher, Rush, Stupak, DeGette, Doyle, Weiner, Butterfield, Christensen, Castor, Space, McNerney, Welch, Waxman (ex officio), Stearns, Deal, Shimkus, Shadegg, Blunt, Radanovich, Walden, Terry, Blackburn and Barton (ex officio).

Staff present: Amy Levine, Telecommunications Counsel; Roger Sherman, Senior Counsel; Tim Powderly, Counsel; Shawn Chang, Counsel; Greg Guice, Counsel; Jennifer Schneider, Mr. Boucher's Chief of Staff; Pat Delgado, Telecommunications Policy Coordinator; Philip Murphy, Legislative Clerk; Neil Fried, Minority Senior Counsel; Amy Bender, Minority Counsel; and Garrett Golding, Legislative Analyst.

### **OPENING STATEMENT OF HON. RICK BOUCHER**

Mr. BOUCHER. The committee will come to order.

Our subject this morning is comprehensive reform of the Universal Service High-Cost Fund, a matter on which the subcommittee will act in the near future. Universal service support is as essential to our national economic future as it has been historically. In this time when electronic communications are at the very heart of the national economy, it is perhaps more essential than ever before that all Americans remain connected. Affordable telephone service not only benefits the individual users of that service but at a time when electronic commerce and communications are central to national economy performance, having all of America connected should be a priority for rural and metropolitan residents alike.

The Universal Service Fund that assures affordable rural telephone service has come under increasing pressure and comprehensive reform is now a necessity. New technologies and new business plans are combining to diminish the long-distance revenues that have historically been relied upon in order to support universal service, and broadband has emerged as a critical part of our tele-

communications infrastructure. In reforming the USF, other funding sources must be tapped, and new controls must be placed on expenditures from the fund. We should also reexamine which networks and services deserve USF support.

In an effort to achieve these goals in a manner that is fair to the rural telephone companies that are the net beneficiaries of USF support and the large regional carriers that are net contributors into the fund, my colleague from Nebraska, Mr. Terry, and I have worked together for the last 3 years and in the last Congress introduced a comprehensive reform bill based on that 3 years of effort. We consulted with dozens of stakeholders and sought consensus among various competing interests. We intend to continue that process this year and shortly will introduce a revised version of that legislation, and we welcome the suggestions and the cosponsorship of our measure by other members of the subcommittee on a bipartisan basis.

Our goal is to expand the revenue base for the fund. We would give the FCC discretion to use a revenues or a numbers approach to contributions or some combination of those two approaches. We would allow the assessment for the fund of intrastate as well as interstate revenues. We would also impose strict limitations on growth of the fund by capping the entire fund and basing payments on a carrier's actual cost rather than the cost of the incumbent telecommunications carrier in the region. We would improve the efficiency of expenditures from the fund by requiring that all recipients meet minimum FCC standards in order to receive support. We would also future-proof the fund by requiring that all recipients offer broadband at preset minimum speeds. To receive support that broadband offering would be a condition. Broadband is to communities today what electricity and basic telephone service were 100 years ago. It is the new essential infrastructure for the commercial success of all communities and clearly deserving, in my view, of USF support.

Other elements of our measure would include a better targeting of support to high-cost areas by switching from statewide to wire center averaging, fixing the phantom traffic problem by requiring carriers to pass through call identifying information, making rural exchanges more marketable for telephone companies that may desire to sell them by repairing the parent trap, and making permanent the Antideficiency Act exemption to the Universal Service Fund rather than requiring an annual appropriations waiver of that ADA provision, which happens at the present time.

There are other matters that I think we should consider and about which I would welcome the insights of our distinguished panel this morning. For example, how, if at all, should the \$7.2 billion of broadband stimulus money affect inclusion of broadband in the universal service reform measure? Another question is when we eliminate the identical support rule, how should the actual cost of the recipients of universal service funding be calculated? As another question, should we eliminate the distinction between rural and non-rural carriers presently embedded as a consequence of an FCC order? I hope that our witnesses will address this morning these and other matters.

I want to thank today's witnesses for their participation, for preparing their testimony and engaging in this important discussion with us.

[The prepared statement of Mr. Boucher follows:]

**STATEMENT OF CONGRESSMAN RICK BOUCHER**

**Subcommittee on Communication, Technology and the Internet  
USF: Reforming the High Cost Funds**

**March 12, 2009**

The subcommittee will come to order.

Our subject this morning is comprehensive reform of the Universal Service High Cost Fund, a matter on which the subcommittee will act in the near future.

Universal service support is as essential to our national economic future as it has been historically.

In this time, when electronic communications are at the heart of the national economy, it is perhaps more essential than ever before that all Americans remain connected.

Affordable telephone service not only benefits the individual users of the service, but at a time when electronic commerce and communications are central to national economic performance, having all of America connected should be a priority for rural and metropolitan residents alike.

The Universal Service Fund assures affordable rural telephone service has come under increasing pressure, and comprehensive reform is now necessary. New technologies and new business plans are combining to diminish the long-distance revenues that have historically been relied upon to support USF, and broadband has emerged as a critical part of our communications infrastructure. In reforming USF, other funding sources must be tapped, new controls must be placed on distributions from the fund, and we must reexamine which networks and services receive support.

In an effort to achieve these goals in a manner that is fair to the rural telephone companies that are the net beneficiaries of USF support and the large regional carriers who are net contributors, my colleague from Nebraska Mr. Terry and I have worked together for the last three years and in the last Congress introduced a comprehensive reform bill.

We have consulted with dozens of stakeholders and sought consensus among various competing interests. We intend to continue that process this year and intend in the coming weeks to introduce a revised version of the legislation. And we welcome the suggestions and co-sponsorship of our measure by other members of the subcommittee on a bipartisan basis.

Our goal is to expand the revenue base for the Fund. We would give the FCC discretion to use a revenues or numbers approach to contributions (or some combination of the two) and would allow the assessment for the Fund of intrastate, as well as interstate and international, revenues. We would also impose strict limitations on growth of the Fund by capping the entire Fund and basing payments on a carrier's actual costs, rather than the costs of the incumbent

telecommunications carrier in the region. We would improve the efficiency of expenditures by requiring that all recipients meet minimum FCC standards to receive support. We would also future-proof the Fund by requiring that all recipients offer broadband at preset minimum speeds to receive support. Broadband is to communities today what electricity and basic telephone service were one hundred years ago. It is the new essential infrastructure for the commercial success of all communities and deserving of USF support.

Other elements in our measure include a better targeting of support to high-cost areas by switching from statewide to wire center averaging, fixing the phantom traffic problem by requiring carriers to pass through call identifiers, making rural exchanges more marketable for telephone companies that may desire to sell them by repealing the parent trap and making permanent the Anti-Deficiency Act exemption for USF so that an annual appropriations rider is no longer required for that purpose.

There are also other matters we must consider and about which I welcome the insights of our distinguished panel. For example, how, if at all, should the \$7.2 billion of broadband stimulus money affect the inclusion of broadband in USF? When we eliminate the identical support rule, how should actual costs be calculated? Should we eliminate the distinction between rural and non-rural carriers?

I hope that our witnesses will address these and other matters.

I want to thank today's witnesses for their assistance today, and I now recognize the Gentleman from Florida, Mr. Stearns for five minutes.

Under the rules of the committee, Mr. Stearns and I have agreed that members will be recognized for two minute opening statements, and any member waiving an opening statement will have two minutes added to his or her time for questioning witnesses.

Mr. BOUCHER. I now recognize the gentleman from Florida, the ranking Republican of our subcommittee, Mr. Stearns, for 5 minutes.

#### **OPENING STATEMENT OF HON. CLIFF STEARNS**

Mr. STEARNS. Good morning, and thank you, Mr. Chairman, and thank you for having this hearing. There has been many, many ideas including your legislation that have been discussed and so I look forward to hearing from our witnesses this morning and hearing how best to move forward.

I think all of us this morning agree that the USF needs to be reformed and reformed quickly. The system is fraught with waste, fraud and abuse, in our opinion. A major overhaul is necessary. So a question before us this morning is what are the appropriate goals of the program and of course how best do we achieve them. The 1996 Telecom Act codified universal service but the concept goes back decades earlier to a time when there was really only one phone company. Now the landscape looks a whole lot different and yet the fund is still administered by outdated rules.

This hearing will focus on the High-Cost Fund, the largest component of the USF and the program most in need of reform. The cost of this fund has more than tripled in the last decade, soaring from \$1.3 billion in 1997 to almost \$4.5 billion last year. The FCC's high-cost rules do not reflect the dramatic changes in the marketplace including multi-facilities-based providers entering markets throughout the Nation. Now nearly the entire country has access to phone service. We have more competition and better technology than ever before. Yet the Universal Service Fund has grown out of control and can continue to do this unless we adopt meaningful reforms.

The universal service fees have topped 11 percent of the consumer's monthly bill. Accordingly, there is a need to reform the program away from subsidies, in our opinion, that may no longer be necessary as technology and services improve and become more and more widespread. Instead, we need to move towards a solution that ensures the goals of universal service but minimizes consumer cost. Without fundamental reform, now is not the time to expand the fund to include just broadband. The recently enacted stimulus package already provides \$7 billion, an entire year's worth of USF, to bring broadband to unserved areas. It will take at least 2 years for the stimulus money to be fully distributed and the program to be completely implemented. For now let us take the 2 years while the stimulus package is being used and examine the effectiveness of the current program. Instead of adding new broadband requirements to universal service, we should engage in oversight evaluation of these existing programs.

In addition, we should impose a firm cap to prevent uncontrolled growth in the fund. With a limitless pool of money, carriers have little incentive to operate more efficiently. The subsidy chills innovation by propping up older technologies and carriers and making it harder for new innovators to compete. Throwing additional money at this crumbling program makes no sense. Moreover, performance measurements are needed to ensure we are getting results from the over \$50 billion we have spent in the last decade.



What impact are these funds having when everyone already has access to phone service? This type of transparency and accountability goes a long way towards preventing abuse.

To really add competitive pressure, however, we also need to move to market-based mechanisms that are technology-neutral and fund the carrier that can provide the most effective service in that area. A report by the GAO shows that the FCC needs to improve oversight and management of the USF. The GAO has also criticized the FCC for failing to develop specific performance goals and measurements for this high-cost program. One question we might ask is, how much has been lost to waste, fraud and abuse. The FCC's inspector general found error rates of close to 25 percent in the High-Cost Fund, which translates to improper payments of approximately \$1 billion. The inspector general also found that all four universal service programs to be "at risk." We need to take a hard look at this program and institute real reform.

So Mr. Chairman, I again commend you for having this hearing to examine the goals and assess the results of the existing program. We all agree that the system needs reform. I hope we are able to work together towards a solution that is fair to all consumers.

Mr. BOUCHER. Thank you very much, Mr. Stearns.

The gentleman from Michigan, Mr. Stupak, is recognized for 2 minutes.

Mr. STUPAK. Thank you, Mr. Boucher, and thank you for holding this hearing on how we should reform the Universal Service Fund. I appreciate that we are taking up this issue quickly considering we almost had the FCC make dramatic changes to the program late last year.

USF is important to rural Americans so significant changes to the program should come from Congress where it can be done in an open manner with direct member input through the legislative process, not with the FCC. Now, this is not to say that this will be an easy process since there are many differing views on how we should reform USF but the one thing I think we can all agree on is that the USF should be reformed to promote broadband deployment. Communities that lack broadband access in today's world are at a disadvantage on all fronts. Businesses without broadband cannot compete in a globalized market. Schools without broadband cannot properly prepare their students today for the workforce of tomorrow and hospitals without broadband cannot access the latest advances in telemedicine.

Reforming USF should mean retooling it so it reflects advancements in technology to meet the needs of tomorrow's economy. Reform should not be mischaracterized as a means to cut overall federal investment into our rural communities. We cannot obtain more broadband deployment with a smaller investment or a weaker support structure for rural telecommunications. I look forward to hearing from our witnesses on how we can modernize the USF to continue meeting its goal of providing universally accessible and affordable telecommunications for all Americans.

Thank you, Mr. Chairman. I yield back the remaining 20 seconds.

Mr. BOUCHER. Thank you very much, Mr. Stupak.

The gentleman from Missouri, Mr. Blunt, is recognized for 2 minutes.

Mr. BLUNT. Thank you, Mr. Chairman, and thank you for holding this hearing today and to have the opportunity to hear from this group of really well-grounded and distinguished witnesses. I know this an area, Mr. Chairman, where you have shown great leadership in the past and I know all the members of the subcommittee are looking forward to working with you to see if we can find ways to reform and update the Universal Service Fund.

We all understand the fund needs serious reform. The cost of the program soared, tripling in the past 12 years alone, and the impact on consumers is uneven and often arduous. Allegations of waste, fraud and abuse have arisen and no suitable accounting mechanism exists to appropriately monitor where the money is going. In short, this program is broken and the Congress should act. However, it should act responsibly and within the mission of ensuring that valuable services remain available to parts of the country that need it. Congress should carefully consider whether it is appropriate to add new components such as broadband access to the Universal Service Fund. We need to stop the soaring cost of the program but do it in a way that ensures that unserved communities continue to get service where the market is challenged to deliver it.

I want to thank you, Mr. Chairman, for calling this hearing. I also want to thank both Mr. Terry and Mr. Barton, our full committee ranking, for their leadership on this issue. Most importantly, I want to thank our witnesses today who come with incredible information on this topic. I look forward to a bipartisan bill to address this program.

Mr. BOUCHER. Thank you very much, Mr. Blunt. That is my goal as well.

The gentleman from Pennsylvania, Mr. Doyle, is recognized for 2 minutes.

Mr. DOYLE. Thank you, Mr. Chairman, for holding this hearing on universal service. I hope that we are able to draw some conclusions after this hearing that will help us expedite the process to make sure that all Americans are able to communicate with each other however they choose.

At our last subcommittee hearing on this issue, I said that the Universal Service Fund's best purpose as we conceived it in the Telecom Act in 1996 had fundamentally changed. At that time I said that "we need to completely reform the fund by moving away from subsidizing telephone service and instead put our money towards the broadband future." For now I will call this needed reform Universal Service 2.0. Mr. Chairman, Universal Service 2.0 means that all Americans have access and are able to use fast broadband. Universal Service 2.0 recognizes that using cost-efficient technologies is critical when some parts of the country are asked to pay for others. Universal Service 2.0 recognizes that competition is still vital to drive down consumer prices and required subsidies, and Mr. Chairman, Universal Service 2.0 means that local governments have a role to play, and I want to say to you, Mr. Chairman, that I will join you in educating anyone at today's witness table that disagrees that they do.

Thanks, and I will yield back my time.

Mr. BOUCHER. Thank you very much, Mr. Doyle.

The gentleman from Oregon, Mr. Walden, is next. I believe he has departed at least temporarily. The gentleman from Nebraska, Mr. Terry, is recognized for 2 minutes.

Mr. TERRY. Well, thank you, Mr. Chairman, for holding this hearing on Universal Service Fund. I have enjoyed our time working together to develop this bill and the framework.

I set out several years ago, almost 4 years ago, to reform USF because I felt that the principles and goals of universal service are relevant today just as they were at the origination of this program. However, the Universal Service Fund had failed to adapt to the changing telecommunications environment. The fact that broadband is still not a supported goal of USF reflects the need for reform. The FCC has built a tremendous record on USF reform over the last few years and now it is time for this committee to act.

I will note that I represent an urban suburban area. I have more concrete than grass in my district yet I see the need to continue universal service and modernize it. I recognize the importance of ubiquitous broadband network and the value my constituents receive from being able to connect to anyone anywhere in the country and hope that my colleagues do too. Now, as we move forward on reform, we must not lose sight that USF is about providing customers in all regions of the Nation living in rural, insular and high-cost areas access to affordable telecommunications and information services.

I yield back.

Mr. BOUCHER. Thank you very much, Mr. Terry, and thank you for your outstanding work on this measure.

The gentlelady from the Virgin Islands, Mrs. Christensen, is recognized for 2 minutes.

Mrs. CHRISTENSEN. Thank you, Mr. Chairman.

Chairman Boucher and Ranking Member Stearns, as a representative of a district that is a high-cost insular area which reportedly received \$25.5 million in high-cost support in 2007 and has benefited from the other programs as well, I thank you for holding this hearing and for both of your long-term legislative efforts to try to keep the Universal Service Fund in sync with a rapidly changing landscape. I think everyone has agreed on the need for reform but also to preserving the intent codified in 1996 that all consumers across our Nation should have access to the broad spectrum of communication possibilities at affordable rates, although with some expansion of that.

The broadband provisions in the recent recovery package will give a welcome boost to the goal of making technology equally accessible to everyone everywhere as well as create more demand for broadband as we look to transform our health care system beginning with health information technology, and so on the areas that present challenges to taking the Universal Service Fund into the 21st century, I look forward to the testimonies and welcome our panelists this morning.

Mr. BOUCHER. Thank you very much, Mrs. Christensen.

The gentleman from Georgia, Mr. Deal, is recognized for 2 minutes.

Mr. DEAL. Thank you, Mr. Chairman. I want to welcome our witnesses, and in order to expedite the hearing of their testimony I will waive my opening statement.

Mr. BOUCHER. Thank you very much, Mr. Deal. We will be pleased to add 2 minutes to your time for questioning our witnesses.

The chairman of the full committee, the gentleman from California, Mr. Waxman, is recognized for 5 minutes.

#### **OPENING STATEMENT OF HON. HENRY A. WAXMAN**

Mr. WAXMAN. Thank you very much, Mr. Chairman. I am pleased that the subcommittee is beginning its review today of the Nation's Universal Service Fund. I suspect that we all agree that the program is in need of repair and that the High-Cost Fund is a good place to start.

I would like to outline a few principles that will guide me during this process. First, I believe the goals of universal service are as important now in the age of broadband as they have ever been. Simply put, we cannot allow any part of the country, urban or rural, to be left behind.

Second, we need to modify the program by looking forward, not by looking back. We need a Universal Service Fund that supports the broadband networks of the future, uses public money wisely and efficiently and spreads responsibility for the program as broadly and equitably as possible.

Third, we must recognize that public obligations accompany public money. The \$7 billion Universal Service Fund is financed by consumers. Service providers are simply conduits that transfer to the fund an 11 percent fee on top of the ordinary charges for the long-distance and international calls. We should ensure that recipients of these public funds meet certain obligations that benefit the consumers who pay these fees. For example, last Congress I introduced legislation to require wireless companies that receive USF subsidies to open their networks to other carriers for roaming purposes. I plan to reintroduce that measure shortly. Going forward, this committee will look closely at whether additional public interest conditions are appropriate.

Fourth, we must ensure full accountability and transparency in this program. As GAO included in a June 2008 report, despite the investment of over \$30 billion in the High-Cost Fund over the last 12 years, there are no data to show what this massive investment has produced. I know Ranking Member Barton feels strongly about this point, and I look forward to working with him and other committee members who share our concern about performance measures and potential waste, fraud and abuse.

As chairman of the Committee on Oversight and Government Reform during the last Congress, I asked the FCC to provide a list of the 10 largest recipients of high-cost program subsidy dollars for 2006 through 2008 as well as a list of the 10 largest per-line subsidies by location for 2006 and 2007. This was not secret information, but it had not been collected or released in this format before. The results of this inquiry raise additional questions about the high-cost program. For instance, three companies in Hawaii, Sandwich Isle Communications, Sprint Nextel and Moby PCS each re-

ceive a subsidy of close to \$13,000 a year per line to serve the same insular area. Over the past 3 years these three companies received a total of more than \$120 million in support. Under current rules, a single household in this part of Hawaii might have a landline phone connection from Sandwich Isle Communications, a wireless phone from Sprint Nextel and a wireless phone from Moby PCS, resulting in a federal subsidy of \$39,000 per year.

As we consider reforms to the High-Cost Fund, we should ask tough questions and be open to creative solutions. For example, where is the money going and to whom? Is this really the best use of public dollars? Are companies adequately demonstrating that funds are being used for their intended purposes? Are there less expensive ways to provide service by using different technologies? Should we consider competitive bidding for what are in effect government contracts? For how long and at what level should carriers be supported after they build facilities? Should we consider requiring State matching grants? Now that over 90 percent of American households have access to wireline broadband, should we consider shifting the funds to also support consumer adoption of broadband?

I know universal service legislation is a priority for you, Mr. Chairman. I look forward to working with you, Ranking Members Stearns and Barton and the other members of this committee to figure out the best way forward. Thank you.

[The prepared statement of Mr. Waxman follows:]

HENRY A. WAXMAN, CALIFORNIA  
CHAIRMAN

JOHN D. DINGELL, MICHIGAN  
CHAIRMAN EMERITUS  
EDWARD J. MARKEY, MASSACHUSETTS  
RICK BOUCHER, VIRGINIA  
FRANK PALLONE, JR., NEW JERSEY  
BART GORDON, TENNESSEE  
BOBBY L. RUSH, ILLINOIS  
G. ESCHOO, CALIFORNIA  
TULIPAK, MICHIGAN  
L. ENGEL, NEW YORK  
GENE GREEN, TEXAS  
DIANA DORTCH, COLORADO  
VICE CHAIRMAN  
LOIS CAPPS, CALIFORNIA  
MIKE DOYLE, PENNSYLVANIA  
JANE HARMAN, CALIFORNIA  
JAN SCHAKOWSKY, ILLINOIS  
CHARLES A. GONZALEZ, TEXAS  
JAY INSLEE, WASHINGTON  
TAMMY BALDWIN, WISCONSIN  
MIKE ROSS, ARKANSAS  
ANTHONY D. WEINER, NEW YORK  
JIM MATHESON, UTAH  
G.K. BUTTERFIELD, NORTH CAROLINA  
CHARLIE MELANCON, LOUISIANA  
JOHN BARROW, GEORGIA  
BARON F. HILL, INDIANA  
DORIS O. MATSUI, CALIFORNIA  
DONNA CHRISTENSEN, VIRGIN ISLANDS  
KATHY CASTOR, FLORIDA  
JOHN SARABANES, MARYLAND  
CHRISTOPHER MURPHY, CONNECTICUT  
ZACHARY T. SPACE, OHIO  
JERRY MCNERNEY, CALIFORNIA  
BETTY SUTTON, OHIO  
BRUCE BRALEY, IOWA  
PETER WELCH, VERMONT

ONE HUNDRED ELEVENTH CONGRESS

## Congress of the United States

### House of Representatives

COMMITTEE ON ENERGY AND COMMERCE

2125 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6115

MAJORITY (202) 225-2927

FACSIMILE (202) 225-2525

MINORITY (202) 225-3941

energycommerce.house.gov

JOE BARTON, TEXAS  
RANKING MEMBER

RALPH M. HALL, TEXAS  
FRED LIFTON, MICHIGAN  
CLIFF STEARNS, FLORIDA  
NATHAN DEAL, GEORGIA  
ED WHITFIELD, KENTUCKY  
JOHN SHIMKUS, ILLINOIS  
JOHN B. SHADEGG, ARIZONA  
ROY BLUNT, MISSOURI  
STEVE BUYER, INDIANA  
GEORGE RADANOVICH, CALIFORNIA  
JOSEPH R. PITTS, PENNSYLVANIA  
MARY BONO MACC, CALIFORNIA  
GREG WALDEN, OREGON  
LEE TERRY, NEBRASKA  
MIKE ROGERS, MICHIGAN  
SUE WILKINS MYRICK, NORTH CAROLINA  
JOHN SULLIVAN, OKLAHOMA  
TIM MURPHY, PENNSYLVANIA  
MICHAEL C. BURGESS, TEXAS  
MARSHA BLACKBURN, TENNESSEE  
PHIL GINGREY, GEORGIA  
STEVE SCALISE, LOUISIANA

### Opening Statement of Rep. Henry A. Waxman Chairman, Committee on Energy and Commerce Universal Service: Reforming the High-Cost Fund Subcommittee on Communications, Technology, and the Internet March 12, 2009

I am pleased that the Subcommittee is beginning its review today of the nation's Universal Service Fund. I suspect we all agree that the program is in need of repair and that the High-Cost Fund is a good place to start.

I would like to outline a few principles that will guide me during this process.

First, I believe the goals of universal service are as important now — in the age of broadband — as they have ever been. Simply put, we cannot allow any part of the country — urban or rural — to be left behind.

Second, we need to modify the program by looking forward, not by looking back. We need a Universal Service Fund that supports the broadband networks of the future, uses public money wisely and efficiently, and spreads responsibility for the program as broadly and equitably as possible.

Third, we must recognize that public obligations accompany public money. The \$7 billion Universal Service Fund is financed by consumers. Service providers are simply conduits that transfer to the Fund an 11% fee on top of ordinary charges for long distance and international calls.

We should ensure that recipients of these public funds meet certain obligations that benefit the consumers who pay these fees.

For example, last Congress, I introduced legislation to require wireless companies that receive USF subsidies to open their networks to other carriers for roaming purposes. I plan to reintroduce that measure shortly. Going forward, this Committee will look closely at whether additional public interest conditions are appropriate.

Fourth, we must ensure full accountability and transparency in this program. As GAO concluded in a June 2008 report, despite the investment of over \$30 billion in the High-Cost Fund over the last 12 years, there are no data to show what this massive investment has produced.

I know Ranking Member Barton feels strongly about this point, and I look forward to working with him and other Committee members who share our concern about performance measures and potential waste, fraud, and abuse.

As Chairman of the Committee on Oversight and Government Reform during the last Congress, I asked the FCC to provide a list of the ten largest recipients of High-Cost Program subsidy dollars for 2006 through 2008, as well as a list of the ten largest per-line subsidies by location for 2006 and 2007.

This was not secret information, but it had not been collected or released in this format before. The results of this inquiry raise additional questions about the High-Cost Program.

For instance, three companies in Hawaii — Sandwich Isle Communications, Sprint Nextel, and Mobi PCS — each receive a subsidy of close to \$13,000 a year per line to serve the same insular area. Over the past three years, these three companies received a total of more than \$120 million in support.

Under current rules, a single household in this part of Hawaii might have a landline phone connection from Sandwich Isle Communications, a wireless phone from Sprint Nextel, and a wireless phone from Mobi PCS, resulting in a federal subsidy of \$39,000 per year.

As we consider reforms to the High Cost Fund, we should ask tough questions and be open to creative solutions. For example:

- Where is the money going and to whom?
- Is this really the best use of public dollars?
- Are companies adequately demonstrating that funds are being used for their intended purposes?
- Are there less expensive ways to provide service by using different technologies?
- Should we consider competitive bidding for what are, in effect, government contracts?
- For how long and at what level should carriers be supported after they build facilities?
- Should we consider requiring state matching grants?
- Now that over 90 % of American households have access to wireline broadband, should we consider shifting the Fund to also support consumer adoption of broadband?

I know Universal Service legislation is a priority for Chairman Boucher. I look forward to working with him, Ranking Members Stearns and Barton, and the other members of the Committee to figure out the best way forward.



Mr. BOUCHER. Thank you very much, Mr. Chairman, and I look forward to working with you and others on this committee on a bipartisan basis to achieve those goals.

The gentleman from Arizona, Mr. Shadegg, is recognized for 2 minutes.

Mr. SHADEGG. Thank you, Mr. Chairman, and thank you for holding this hearing.

I want to begin by welcoming Mr. Steve Davis, the senior vice president of Public Policy and Government Relations for Qwest Communications. Qwest plays a large role in my Congressional district and I look forward to his testimony as well as that of the other witnesses.

I would like to associate my views with the remarks of the ranking member, Mr. Stearns. I believe he articulated my views here well. I would also like to commend Congressman Lee Terry and Ranking Member Barton for their work in this area.

I look forward to the discussion of the Universal Service Fund and to learning ways in which we should improve and reform the system. We have come a long way since the concept of a Universal Service Fund first came forward. We have worked as a Nation to ensure that affordable basic telecommunications services are available to everyone regardless of where they live but we are now at a crossroads as our technology evolves and improves, and I believe it is essential that we reevaluate the Universal Service Fund and how it is used. It is clear that some reform is necessary, and given the current status of our economy, we must find ways to make the system more cost-effective. An audit from July 2006 to June 2007 revealed that roughly \$1 billion of Universal Service Fund funds were awarded erroneously. We simply cannot afford nor defend that kind of waste in our system. We must find ways to make sure that these errors do not occur in the future because they will only hurt our economy and our constituents.

I very much look forward to the testimony of our witnesses here today on how we can improve the system and use technology to make it better serve the Nation at a more economical cost, and again, Mr. Chairman, I thank you for the hearing.

Mr. BOUCHER. Thank you very much, Mr. Shadegg.

The gentleman from Vermont, Mr. Welch, is recognized for 2 minutes.

Mr. WELCH. Thank you very much, Mr. Chairman.

Two things. It has mostly been said. But, one, the need is enormous and it has to include broadband. That would make a huge difference everywhere but especially to rural States like Vermont. We get many companies that can decide whether to come to Vermont or not, depending on whether in the rural area they want to locate there is access to broadband.

Second, we have to reform the amount of money and how it is being spent, how it is being deployed, it has been said, but just the witnesses here at this table represent companies who received in the range of \$5 billion for the universal fund, and the question obviously is, to the users, to your customers, are you using that money well, are you getting the job done, and you face the tension because on the one hand, you have an obligation to the shareholders of your company that suggest that you maximize profit, but

on the other hand, you have a public trust and that requires that you extend access to this essential utility service to every single American.

I look forward to working with you, Mr. Chairman, and the members of the committee to improve this bill. Thank you.

Mr. BOUCHER. Thank you very much, Mr. Welch.

The gentleman from Oregon, Mr. Walden, is recognized for 2 minutes.

Mr. WALDEN. Thank you, Mr. Chairman. I am going to waive my opening statement in lieu of more time in the questioning period.

Mr. BOUCHER. Thank you very much, Mr. Walden.

The gentlelady from Florida, Ms. Castor, is recognized for 2 minutes.

Ms. CASTOR. Thank you, Mr. Chairman. I will ask unanimous consent to submit my opening statement for the record and waive at this time.

Mr. BOUCHER. Without objection, the opening statements of all members who desire to submit them will be received for the record, and the chair thanks the gentlelady.

[The prepared statement of Mr. Space follows:]



FOR IMMEDIATE RELEASE

March 12, 2009

Contact: Matt Thornton

202-225-6265

**CONGRESSMAN ZACK SPACE'S OPENING STATEMENT**  
**Subcommittee on Communications, Technology, and the Internet Hearing on**  
**"Universal Service Fund: Reforming the High Cost Fund"**  
*- (As Prepared) -*

WASHINGTON, D.C. — Congressman Zack Space (OH-18) today provided the following testimony to the Telecom Subcommittee for a hearing on reforming the Universal Service Fund:

"The 18<sup>th</sup> district is serviced by – among others - some of this hearing's panelists: AT&T, Verizon, and Embarq.

"Many areas in my district are suffering from the challenges of poverty and unemployment. In Morgan County, for example, the unemployment rate is 16.3 percent. As we know, revitalizing the local economies of rural areas must include improvements to infrastructure. And, as our national economy has become more global in scale, places like Morgan County and other regions I represent have largely been left behind because they simply do not have the resources to remain competitive or to attract new business investments.

"That is why I was incredibly supportive of the broadband expansion funds our Committee worked hard on including in the Recovery Act. And, that is why I believe the Universal Service Fund should explicitly cover broadband services. Chairman Boucher and Congressman Terry's bill from last Congress would make this change; I cosponsored that legislation and thank them both for their hard work.

"Almost all Americans have access to and utilize voice telephone services. But, the reality is that many people lack access to broadband -- what I believe to be a basic infrastructure need.

"As we move forward, I support modernizing the Universal Service Fund so that carriers may use the funds for state of the art communications, including broadband. I believe we should also work to ensure universal service is targeted to bring coverage to those who truly need it. "

Congressman Space has represented Ohio's 18th Congressional District since 2007. He is working to restore integrity to the office, create the conditions to bring new industry and jobs to Ohio, and support renewable energy.

###

Mr. BOUCHER. The gentleman from Illinois, Mr. Shimkus, is recognized for 2 minutes.

Mr. SHIMKUS. Thank you, Mr. Chairman. I will be brief.

It is great to have the panel. We need to move on legislation. Broadband deployment is key in rural America. I represent 30 counties, parts of 30 of 102 in the State of Illinois, so this has been very helpful. I also co-chair with Congresswoman Eshoo the E-911 caucus, you know, stellar delivery and location identification is critical to rural America, especially when health and safety issues are concerned.

We have some challenges as we move forward, Mr. Chairman, but I look forward to working with you as we make those challenges and accept those and move forward. I yield back.

Mr. BOUCHER. Thank you very much, Mr. Shimkus.

The gentleman from New York, Mr. Weiner, is recognized for 2 minutes.

Mr. WEINER. In the interest of more time for questions, I yield my opening statement.

Mr. BOUCHER. Thank you, Mr. Weiner.

The gentleman from California, Mr. McNerney, is recognized for 2 minutes.

Mr. MCNERNEY. Thank you, Mr. Chairman.

Well, we certainly have seen a tremendous change in the technology since the last legislation on this in 1996. It was difficult then to foresee what we would be having now and it is going to be hard for us to see what we are going to see in the next 10 years, so we are going to look to you all to give us guidance on that. We are going to work on both sides of the aisle and we will come up with some good legislation. Thank you.

Mr. BOUCHER. Thank you very much, Mr. McNerney.

Mr. Rush from Illinois is recognized for 2 minutes.

Mr. RUSH. Mr. Chairman, I think I will defer for an additional 2 minutes of questioning.

Mr. BOUCHER. Thank you, Mr. Rush.

All members having been recognized for opening statements, we now turn to our panel of witnesses, and I want to express appreciation to each of them for their appearance here this morning and for their participation in this conversation regarding universal service reform. Our panel consists of Mr. Steve Davis, senior vice president for public and policy and government relations for Qwest; Mr. Joel Lubin, vice president for public policy at AT&T; Mr. Ted Carlson, chairman of the Board of United States Cellular Corporation; Mr. Mark Gailey, chairman of the board of the Organization for the Promotion of Advancement of Small Telecommunications Companies and a board member of the Western Telecommunications Alliance; he is also president and general manager of Totah Communications. Mr. Derek Turner is research director at Free Press. Mr. Tom Tauke, a former member of this committee, is the executive vice president for public policy affairs and communications at Verizon. Mr. Tom Gerke is the chief executive officer of Embarq. Mr. Gregory Hale is speaking on behalf of the National Telecommunications Cooperative Association. He is general manager of the Logan Telephone Cooperative. And Mr. Scott Wallsten is vice

president for research and a senior fellow at the Technology Policy Institute.

Without objection, all of your prepared written statements will be entered into the record and we would welcome your oral summaries and ask that you keep those to approximately 5 minutes so that we have ample time for questions. Mr. Davis, we will be pleased to hear from you first.

**STATEMENTS OF STEVE DAVIS, SENIOR VICE PRESIDENT, PUBLIC POLICY AND GOVERNMENT RELATIONS, QWEST CORPORATION; JOEL E. LUBIN, VICE PRESIDENT, PUBLIC POLICY, AT&T; LEROY T. CARLSON, JR., CHAIRMAN OF THE BOARD, U.S. CELLULAR; MARK GAILEY, PRESIDENT AND GENERAL MANAGER, TOTAH COMMUNICATIONS; DEREK TURNER, RESEARCH DIRECTOR, FREE PRESS; TOM TAUKE, EXECUTIVE VICE PRESIDENT, PUBLIC AFFAIRS, POLICY AND COMMUNICATIONS, VERIZON; TOM GERKE, CHIEF EXECUTIVE OFFICER, EMBARQ; GREGORY HALE, GENERAL MANAGER, LOGAN TELEPHONE COOPERATIVE, INC.; AND SCOTT WALLSTEN, VICE PRESIDENT FOR RESEARCH AND SENIOR FELLOW, THE TECHNOLOGY POLICY INSTITUTE**

#### **STATEMENT OF STEVE DAVIS**

Mr. DAVIS. Good morning. Thank you, Mr. Chairman, and members of the committee. My name is Steve Davis and I am senior vice president for public policy and government relations for Qwest. I appreciate the opportunity to share Qwest's views with you this morning on universal service.

Before I address the universal service issues directly, I would like to tell you a bit about Qwest and why we care so much about these issues. Qwest provides voice data, Internet and video services nationwide and globally, and we provide local telephone service and broadband service in 14 western States. As of December 31, 2008, Qwest provided 11.6 million voice-grade access lines and 2.8 million broadband lines to customers in our territory, and we currently have broadband available to 86 percent of our customer base. Our local service territory is very diverse. It includes urban areas like Denver, Seattle, Minneapolis and Phoenix but it also includes many smaller towns and cities and many rural communities with low household density. In fact, 42 percent of our 1,300 wire centers serving 2.2 million homes and businesses are located outside of metropolitan areas. We have 34 wire centers that serve areas comparable or larger than the size of Rhode Island. Needless to say, these are very sparsely populated areas.

Although Qwest serves extremely rural areas in all the 14 States in which we provide local service, we only receive high-cost federal universal service support in four States. Qwest receives no high-cost support in such rural States as North Dakota, Idaho, Iowa, New Mexico. In 2009, Qwest is projected to receive approximately 1 percent of the total \$2.3 billion federal high-cost assistance.

I would like to commend Chairman Boucher for his longstanding recognition of the need for universal service reform and for holding this hearing to address these important issues. Qwest supported the proposed universal service reform bill of Chairman Boucher

and Congressman Terry in the last Congress and we look forward to continued efforts to accomplish significant universal service reform in this Congress.

Currently, there are different mechanisms for distributing high-cost support to carriers depending on whether they are deemed rural or non-rural under the FCC's rules, and despite the massive rural territory served by Qwest, under the FCC's rules we have been deemed a non-rural carrier and thus excluded from access to the vast majority of the federal high-cost assistance. Qwest and other non-rural carriers receive limited support under a mechanism that has twice been held invalid by the 10th Circuit Court of Appeals yet this flawed system for distributing high-cost support remains in place. High-cost support should be based on the areas served and not the size or identity of the carrier providing the service. Qwest agrees with the approach of Chairman Boucher and Congressman Terry's USF reform bill that high-cost support to non-rural carriers should be retargeted to individual wire centers.

The purpose of high-cost support has been to enable telecommunications service in areas where it is not otherwise economic for a carrier to provide the service. It should not be used to support multiple carriers in an area where it is uneconomic for even one to provide service. Unfortunately, in many areas the current high-cost support program does just that. High-cost support to duplicate network providers, primarily wireless carriers, has caused the enormous growth in the High-Cost Support Fund in recent years. While high-cost support to incumbent carriers has been flat since 2003, support to these duplicative network providers has grown from approximately \$17 million in 2001 to a projected \$1.4 billion in 2009. In order to return the High-Cost Fund to its core principle of universal service, high-cost support for all carriers should be based on their costs of providing the support services.

As Chairman Boucher, Congressman Terry and many others have recognized, it is also time to promote universal access to broadband through universal service support. Qwest currently offers broadband services to approximately 86 percent of the households in our region. However, in the absence of additional federal assistance, the necessary upgrades to expand our footprint are not economically feasible in many rural areas. The grants for broadband deployment established in the stimulus are a start but are not sufficient to result in ubiquitous deployment of high-speed broadband. There remains a crucial role for universal service funding.

Qwest believes that the primary purpose of any broadband deployment subsidization should be to aid construction of facility in unserved areas but high-cost support should not provide ongoing operational subsidies nor should the support subsidize competition or build duplicate networks. In 2007, Qwest proposed a new federal universal service program that would provide one-time grants to selected applicants to deploy broadband to unserved areas, and we commend that proposal to the subcommittee for its consideration. Congress has an important opportunity here to structure an improved program for supporting universal access to basic telephone service and a new program for supporting universal access to broadband.

Again, I thank you for the opportunity to testify today on these issues and I look forward to your questions.  
[The prepared statement of Mr. Davis follows:]

**BEFORE THE HOUSE COMMITTEE ON ENERGY AND COMMERCE**

**SUBCOMMITTEE ON COMMUNICATIONS,  
TECHNOLOGY, AND THE INTERNET**

**Hearing on the Universal Service Fund**

**March 12, 2009**

**TESTIMONY OF ROBERT STEVEN DAVIS**

**SENIOR VICE PRESIDENT  
PUBLIC POLICY AND GOVERNMENT RELATIONS  
QWEST COMMUNICATIONS INTERNATIONAL INC.**



Good morning Mr. Chairman and Members of the Committee. My name is Steve Davis, and I am Senior Vice President for Public Policy and Government Relations for Qwest Communications International Inc. Today I am here on behalf of Qwest Corporation, which operates as an incumbent local exchange carrier (ILEC) in fourteen mid-western and western states and Qwest Communications Company, LLC, which operates a long-haul long distance network and one of the world's largest Internet backbones. I appreciate the opportunity to share Qwest's views on the federal universal service fund (FUSF) with you at today's hearing.

#### **I. ABOUT QWEST.**

Before I address the universal service issues directly, I would like to tell you a bit about Qwest and why we care so much about these issues. Qwest provides voice, data, Internet and video services nationwide and globally. Qwest's ILEC serving area spans the distance from roughly the Mississippi River on the East, the Pacific Ocean on the West, Canada on the North and Mexico on the South. Qwest provides service in Arizona, Colorado, Idaho, Iowa, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming. Its serving territory in these fourteen states encompasses 272,000 square miles. As of December 31, 2008, Qwest provided 11.6 million voice grade access lines and 2.8 million broadband lines to customers in its territory<sup>1</sup> and currently has broadband available to 86 percent of its customer base.

---

<sup>1</sup> Form 10-K of Qwest Communications International Inc., filed with the U.S. Securities and Exchange Commission, Feb. 13, 2009, at 2.

Qwest's ILEC territory is diverse. It includes dense urban areas, smaller cities and towns, farmlands in rich agricultural areas, areas of dry land farming, national forest areas, bureau of land management areas, mountainous areas including national park areas, desert areas, and areas with a great number of lakes. It includes many rural communities and areas of low household density. In many cases the low density areas served by Qwest are also an extended distance from the nearest town.

Qwest has 1,310 local switching wire centers. These wire centers serve as a central point where the local customers are physically connected to the Public Switched Telephone Network (PSTN). Of these wire centers, 553 – 42% – are located outside of metropolitan areas.<sup>2</sup> These 553 wire centers serve 2.2 million access lines.

Qwest serves many areas with low population density which results in low local loop density. The local loop is the physical plant that connects the customer's premises to the customer's serving wire center. Fewer customer premises for large areas result in low local loop density. For example, Qwest's wire centers in Lusk, WY and Gunnison, CO, have serving areas nearly three times larger than the entire state of Rhode Island.<sup>3</sup> But, the Lusk wire center has a local loop density of fewer than one access line per square mile and Gunnison has fewer than five access lines per square mile. By contrast, here within the Washington, D.C. city limits there are approximately 10,000 access lines per square mile.<sup>4</sup>

---

<sup>2</sup> Specifically, these are metropolitan areas defined as U.S. Census Bureau Metropolitan Statistical Areas (areas with more than 50,000 population).

<sup>3</sup> Both the Lusk and Gunnison wire center serving areas are approximately 2,900 square miles.

<sup>4</sup> Washington, D.C. proper is 68.3 square miles. [http://en.wikipedia.org/wiki/Washington,\\_D.C.](http://en.wikipedia.org/wiki/Washington,_D.C.) Verizon has reported 668,803 access lines in D.C. to NECA. The NECA file is available at the following link: <http://www.fcc.gov/wcb/iatd/neca.html>. The file from the 2007 Report is in the zip file USF08R07.zip and the file within the zip is USF2008LC08. The switched access line count for Verizon of DC is in cell R990.

In fact, Qwest has 34 wire centers that serve an area comparable to the area of Rhode Island or larger. Qwest has 175 wire centers with local loop density of fewer than ten access lines per square mile. Additionally, as would be expected in extremely low density areas, Qwest serves local loops of extremely long length. For example, in the wire centers of Douglas, Wyoming and Gillette, Wyoming, Qwest serves customers with local loops in excess of 75 miles.

The extremely rural nature of many of Qwest's wire centers significantly increases its cost of providing basic local telephone service and broadband service in these rural areas relative to the costs for providing these services in more urban areas. This is due to several factors. The low density of its rural serving areas as described above results in increased costs per customer access line as fixed costs are spread over fewer lines. And, the extremely long loop lengths result in significantly increased costs to place and maintain the physical plant from the central office to the customer's premises. Still further, the rocky and mountainous terrain that is encountered in much of Qwest's ILEC region as well as significant lake regions, in which it is harder to place and maintain physical plant, also drives up the cost of providing basic telephone service to customers in those areas.

And, Qwest faces robust competition in providing communication services throughout its ILEC region. In each state in Qwest's ILEC territory state regulators have found that there is sufficient competition in the provision of telecommunication services to afford reduced regulation or full deregulation of those services.

In spite of the significantly rural nature of its ILEC service territory, Qwest receives very limited high-cost federal universal service support. Although Qwest serves

extremely rural areas in all fourteen of the states in its ILEC territory, Qwest only receives high cost support in four states: Montana, Wyoming, Nebraska and South Dakota. Thus, in Gunnison, Colorado, where Qwest has a local loop density of five access lines per square mile in a service area larger than the size of Rhode Island as I mentioned earlier, Qwest receives no federal high-cost support. In fact, while there can be no doubt that Qwest provides service to many rural areas of the country, for purposes of universal service, Qwest is considered a “non-rural” carrier and is only eligible for limited support from the federal “non-rural” universal service fund.<sup>5</sup> In 2009 Qwest is projected to receive approximately \$25 million in support from the high cost fund, or approximately 7% of the projected \$337 million of high cost support for areas served by “non-rural” carriers, which is only 1% of the total \$2.3 billion in high cost support for “rural” and “non-rural” carriers.<sup>6</sup>

## **II. CONGRESSIONAL REFORM OF THE UNIVERSAL SERVICE FUND IS NEEDED TO ENABLE EFFICIENT DISTRIBUTION OF HIGH-COST SUPPORT AND TO FURTHER UNIVERSAL BROADBAND DEPLOYMENT.**

Qwest commends Chairman Boucher for his long-standing recognition of the need for universal service reform and for holding this hearing to address these important issues. Qwest supported the proposed Universal Service reform bill of Chairman Boucher and Congressman Terry in the last Congress and we look forward to continued efforts to accomplish significant universal service reform in this Congress.

---

<sup>5</sup> Qwest has three small rural affiliates that receive Federal USF:

- El Paso County Telephone which has 4,585 lines and receives \$0.5M in rural high cost support;
- Northern Idaho which has 27,733 lines and receives \$0.4M in rural high cost support;
- Malheur Telephone which has 11,908 lines and receives \$0.6M in rural high cost support.

The \$1.5M in rural high cost support is included in Qwest’s total Federal high cost support of \$25M. Line data is from the Universal Service Monitoring Report for 2008 Table 3.31 and Federal High Cost Support data is from USAC report HC-01 for 2<sup>nd</sup> Quarter 2009.

<sup>6</sup> Data is based on USAC HC-01 2Q09.

There are a wide range of issues to be considered in comprehensive universal service reform, including improving administration of the fund, improving the methodology for contributions to the fund, and improving each of the four programs: high-cost support, low-income support, schools and libraries support, and rural healthcare support. Additionally, some will argue that universal service is no longer necessary to support basic voice services. My testimony, today, however, starts from the premise that universal service support for basic voice services in areas where it is not economical for any carrier to provide service not only continues to be necessary, but must be reformed to accomplish its core purpose of universal access to telecommunications service. And while all of these issues are worthy of significant discussion, in this testimony I am going to focus on two key issues: reform of the high-cost support program and universal service support for broadband deployment. The high-cost support program should be reformed such that distribution of high-cost support is company and technology neutral. That is to say that support to high-cost areas should not depend on the type of company providing the service or the type of technology used. And, high-cost support should not subsidize competition. As the FCC has stated, "The purpose of high-cost universal service support is to help provide access to telecommunications service in areas where the cost of such service otherwise might be prohibitively expensive."<sup>7</sup> Subsidizing multiple carriers in an area where it is uneconomic for even one carrier to provide service is at cross purposes with the goal of universal access to telecommunications service. Qwest agrees with the

---

<sup>7</sup> *In the Matter of Federal-State Joint Board on Universal Service; Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers*, CC Docket Nos. 96-45 and 00-256, Fourteenth Report and Order, Twenty-Second Order on Reconsideration, and Further Notice of Proposed Rulemaking in CC Docket No. 96-45, and Report and Order in CC Docket No. 00-256, 16 FCC Rcd 11244, 11251 ¶ 13 (2001) (citation omitted) (*MAG Order*).

Federal-State Joint Board on Universal Service (Joint Board) and the FCC that the current universal service rule which provides the same per-line high-cost universal service support that an ILEC receives to competitive eligible telecommunications carriers (CETCs) (known as “the identical support rule”) should be eliminated.<sup>8</sup> In today’s competitive marketplace, high-cost universal service support should be based on the area served – not the company providing the service or the technology used – and each carrier’s costs to provide the supported services.

In addition to reforming high-cost support for basic voice services, as Chairman Boucher, Representative Terry and others on this subcommittee have recognized, Congress should authorize universal service support for broadband deployment to unserved areas.

**A. High-cost Support Should Be Company And Technology Neutral.**

Currently, there are different mechanisms for distributing high-cost support to “rural” carriers and “non-rural” carriers, even though these carriers serve similarly-situated high-cost areas. The reason for this is that in implementing the universal service provision of the 1996 Telecommunications Act, the FCC determined that high-cost universal service support should be determined based on forward-looking cost mechanisms, instead of the then-existing method of using carriers’ embedded (historical) costs.<sup>9</sup> But, while the FCC concluded that larger carriers that served urban and rural areas would be able to immediately make the transition, smaller carriers needed more

---

<sup>8</sup> The Federal-State Joint Board on Universal Service is a board that Congress required the FCC to create to make recommendations to the FCC regarding its universal service rules. *See* 47 U.S.C. § 254(a)(1). Also, in order to receive federal high-cost support a carrier must be designated as an “eligible telecommunications carrier” (ETC) under 47 U.S.C. § 214(e). Any carrier who is designated an ETC in an area already served by an ETC is known as a competitive ETC.

<sup>9</sup> *MAG Order*, 16 FCC Red at 11247 ¶ 4.

time, so a modified embedded cost mechanism was put in place to determine high-cost universal service support for carriers that fit the definition of “rural” carriers in the Act.<sup>10</sup> Although the modified mechanism was only put in place for five years, and was to expire on June 30, 2006, in May 2006 the FCC extended the interim mechanism indefinitely.<sup>11</sup> At the time that the FCC adopted the modified mechanism for high-cost support to rural carriers, it explicitly noted that there is no statutory requirement to distinguish between “rural” and “non-rural” carriers in determining universal service support.<sup>12</sup> Additionally, the FCC expressly noted that the modified mechanism for rural carriers was an interim solution that was not “a viable long-term solution.”<sup>13</sup>

Meanwhile, the vast majority of federal high-cost support goes to areas served by “rural” carriers under the indefinitely temporary mechanism for distributing high-cost support to those carriers. In 2007, \$1.5 billion in federal high-cost loop and local switching support was provided in areas served by “rural” ILECs.<sup>14</sup> There was \$352 million distributed for “non-rural” high-cost support. This is the case even though it has been estimated that only about one in five rural customers in the nation live in areas served by these “rural” carriers.<sup>15</sup>

And, while the “rural” carriers receive most of the federal high-cost support under their temporary distribution mechanism, the “non-rural” carriers receive their lesser support under a mechanism that has been held invalid twice by the Tenth Circuit. One of

---

<sup>10</sup> See *id.* at 11252-59 ¶¶ 14-30.

<sup>11</sup> *In the Matter of Federal-State Joint Board on Universal Service; High-Cost Universal Service Support*, CC Docket No. 96-45; WC Docket No. 05-337, Order, 21 FCC Rcd 5514 (2006) (*Interim Order*).

<sup>12</sup> *MAG Order*, 16 FCC at 11246 n.3, 11310-11 ¶ 171.

<sup>13</sup> *Id.* at ¶ 170.

<sup>14</sup> *2007 Universal Service Monitoring Report*, CC Docket No. 98-202, Table 3.1, “High-Cost Support Fund Payment History”, Dec. 28, 2007 (*2007 Monitoring Report*).

<sup>15</sup> *MAG Order*, 16 FCC Rcd at 11310-11 ¶ 171 (referencing the comments of the Maine and Vermont Commissions).

the guiding universal service principles set out in the 1996 Act is that consumers in rural, insular and high-cost areas should have access to services and rates for those services that are reasonably comparable to the services and rates in urban areas.<sup>16</sup> The Act also requires that universal service support be “explicit and sufficient” to achieve universal service purposes.<sup>17</sup> In 2003, the Tenth Circuit found the FCC’s mechanism for distributing high-cost support to “non-rural” carriers to be invalid because the FCC had failed to explain how the mechanism would achieve the universal service aims of reasonably comparable services and rates and sufficient support and the Court remanded the matter back to the FCC to create a valid mechanism. The FCC modified the mechanism, but in 2005 the Tenth Circuit found that the FCC again had not sufficiently justified how the modified mechanism would ensure sufficient support and reasonably comparable rates and services in high-cost areas served by “non-rural” carriers, and again remanded the matter to the FCC to justify or fix the invalid mechanism. It has now been four years since that remand and the FCC has neither justified nor fixed the invalid mechanism under which it distributes high-cost support to “non-rural” carriers. In January of this year, Qwest and the Maine, Vermont and Wyoming state commissions filed a petition for mandamus relief in the Tenth Circuit, asking the Tenth Circuit to instruct the FCC to promptly issue a decision addressing the invalid mechanism.<sup>18</sup> The petitioners and the FCC have just last week agreed to a timeline under which the FCC would issue final rules on a “non-rural” mechanism by April 2010 and the FCC has

---

<sup>16</sup> 47 U.S.C. §§ 254(b)(3) & (5).

<sup>17</sup> 47 U.S.C. § 254(e).

<sup>18</sup> Petition for a Writ of Mandamus to the Federal Communications Commission of Qwest Corporation, Maine Public Utilities Commission, Vermont Public Service Board and Wyoming Public Service Commission, No. 09-9502 (10<sup>th</sup> Cir., filed Jan. 14, 2009).



notified the court of the agreement.<sup>19</sup> In the meantime, “non-rural” carriers continue to receive their high-cost support via an unlawful mechanism.

One basis for the distinct “rural” and “non-rural” support mechanisms was that historically, the larger “non-rural” carriers have subsidized the rates in high-cost areas through implicit subsidies in phone rates paid by their urban and business customers. Smaller “rural” carriers that only served rural areas were not able to implement such implicit subsidies, and thus received more explicit support to serve the same types of high-cost, rural areas that the larger carriers also served. But, today this distinction is disappearing. With increased competition in the telecommunications marketplace, any remaining implicit subsidies between rural and urban wire centers are being quickly eroded, as larger ILECs such as Qwest lose substantial portions of their business and residential market share in more urban markets. Since 2003, ILECs, on average, have lost 18 percent of their access lines.<sup>20</sup> This follows the loss of more than 10 million access lines between 2000 and 2003.<sup>21</sup> These line losses have resulted, in part, from tremendous growth in intermodal competition over the past five years.<sup>22</sup> Residential and business customers throughout the country now have access to a variety of competitive alternatives for affordable telephone services. Such alternatives include cable service providers (providing either circuit switched or facilities-based Voice over Internet

<sup>19</sup> Response of FCC to Petition for a Writ of Mandamus, No. 09-9502 (10<sup>th</sup> Cir., filed Mar. 6, 2009).

<sup>20</sup> *Local Telephone Competition: Status as of June 30, 2007*, Industry Analysis and Technology Division, Wireline Competition Bureau, March 2008, Table 4 (*2007 Local Telephone Competition Report*).

<sup>21</sup> *Id.*

<sup>22</sup> They also are attributable to the substitution of other services, such as broadband-enabled Internet and e-mail services, for traditional telephone services. While ILECs provide broadband services, cable providers continue to serve the majority of broadband consumers. *High-Speed Services for Internet Access: Status as of June 30, 2007*, Industry Analysis and Technology Division, Wireline Competition Bureau, March 2008, Chart 6.

Protocol (VoIP) services), wireline competitive local exchange carriers (CLECs), wireless carriers, and “over-the-top” VoIP providers.<sup>23</sup>

In Omaha, Cox, rather than Qwest, now provides the majority of telephone connections, and Qwest faces highly competitive market conditions in other urban areas, such as Denver, Minneapolis, Phoenix, and Seattle. Due to the high fixed costs of telephony, such loss of market share does not significantly reduce Qwest’s costs in those markets. In turn, Qwest’s remaining customers in those markets generally do not subsidize phone services in other, higher-cost areas.<sup>24</sup> Thus, the historic rationale for this differential support for carriers serving the same types of rural and high-cost areas has been eviscerated by today’s competitive marketplace. Reform of the high-cost fund must recognize and address this reality. The Joint Board conceptually agrees that “providers of service to rural areas should be treated similarly.”<sup>25</sup> In today’s competitive environment, high-cost support should be based on the area served, and not the size of the carrier providing the service.

Additionally, the methodology for allocating high-cost support to non-rural carriers must be revamped. Qwest agrees with the approach of Chairman Boucher and Congressman Terry’s USF reform bill that high-cost support to “non-rural” carriers

---

<sup>23</sup> “Over-the-top” VoIP service can be used over any broadband connection, which is available from a number of sources, including providers of cable modem service, DSL, wireless broadband, and satellite.

<sup>24</sup> Similar line losses in rural areas have tended to increase the per-line cost of providing service in those areas, because the ILEC still must maintain its outside plant throughout its service territory. In one dramatic example, Qwest’s competitor now serves 93 percent of the access lines in Qwest’s exchange in Terry, MT. *In the Matter of Qwest Petition for Forbearance Under 47 U.S.C. § 160(c) from Resale, Unbundling and other Incumbent Local Exchange Requirements Contained in Sections 251 and 271 of the Telecommunications Act of 1996 in the Terry, Montana Exchange*, WC Docket No. 07-9, Memorandum Opinion and Order, 23 FCC Rcd 7257 (2008). Despite these competitive losses, Qwest still shoulders the cost of maintaining the network plant to provide service in such areas, with little associated revenue.

<sup>25</sup> *In the Matter of High-Cost Universal Service Support; Federal-State Joint Board on Universal Service*, WC Docket No. 05-337; CC Docket No. 96-45, Recommended Decision, 22 FCC Rcd 20477, 20487 ¶ 40 (2007) (*Recommended Decision*).

should be re-targeted to individual wire centers.<sup>26</sup> The current mechanism allocates high-cost support to “non-rural” carriers in each state based on whether the ILEC’s statewide average costs exceed a national benchmark. Even if a carrier serves several high-cost areas in a state, if its average costs statewide do not exceed the national benchmark, no high-cost support is available for that carrier in that state. As a result, today, many of the nation’s most sparsely populated communities served by “non-rural” ILECs, like Qwest, receive little, if any, federal high-cost support. Even though the Commission is projected to disburse \$337 million in federal “non-rural” support in 2009, that support will only go to carriers in a handful of states.<sup>27</sup> At the local level, Qwest and other “non-rural” ILECs serve thousands of rural wire centers with very high costs -- as calculated by the FCC’s High Cost Model<sup>28</sup> -- yet receive little, if any, explicit federal support for those wire centers. For example, Qwest serves Patagonia, AZ (model monthly cost \$127 per line), Deckers, CO (model monthly cost \$137 per line), Rose Hill, IA (model monthly cost \$162 per line), Comstock, MN (model monthly cost \$221 per line), and Leonard, ND (model monthly cost \$204 per line), but receives no federal high-cost support in any of these areas. Currently, the national average cost developed by the FCC’s cost model is \$21.43, and high-cost support is available where a non-rural carrier’s statewide average cost per line exceeds two standard deviations of this national average, or \$28.13 (the national benchmark). Clearly, all of the costs noted above, well exceed this national benchmark, but because statewide average costs – and not individual wire center costs – are measured against the benchmark, none of these wire centers receives federal high-

---

<sup>26</sup> Universal Service Reform Act of 2007, H.R.2054, 110<sup>th</sup> Cong., 1<sup>st</sup> Sess. § 3(e)(3)(A).

<sup>27</sup> The states receiving Federal non-rural high-cost support are AL, KY, MS, MT, NE, SD, VT, WV, and WY. Source: USAC report HC-01 for 2<sup>nd</sup> Quarter 2009.

<sup>28</sup> The High Cost Model is the model used to calculate the forward-looking costs of non-rural carriers used to determine high-cost support to those carriers.

cost support. There are hundreds of other examples of Qwest wire centers with costs above the national benchmark where Qwest receives no federal high-cost support.

The current use of statewide average costs to allocate high-cost support assumes that low cost urban areas can subsidize high cost areas. As already discussed, competition today in urban areas does not allow support to flow to high cost areas. In today's competitive market place a different allocation method must be adopted to effectively and efficiently target high-cost support to high-cost areas. It is time to move away from the existing distinctions in distributing high-cost support based on carrier size, and from the invalid mechanism for distributing high-cost support to "non-rural" carriers.

**B. High-cost Support Should Enable Universal Access, Not Subsidize Competition.**

Congress also must ensure that the high-cost universal service program returns to its core purpose of enabling universal access to affordable telecommunications service in high-cost areas. The purpose of high-cost support is to enable telecommunications service in areas where it is not otherwise economic for a carrier to provide the service. Given the many high-cost areas throughout the country that do not receive any high-cost support, it should not be the purpose of the high-cost universal service program to support multiple carriers in an area where it is uneconomic for even one carrier to provide service. Supporting multiple carriers in high-cost areas is simply antithetical to the core purpose of the fund.

Unfortunately, in many areas the current high-cost support program does just that. And, this is not the case of just two or three competitive carriers in a high-cost area receiving universal service support, but ten or more. For example, in Hattiesburg,

Mississippi, a town with a population of 45,000, there are 12 competitive providers, known as CETCs and one ILEC all receiving high-cost support.<sup>29</sup>

The reason for this excessive support is the FCC's identical support rule. The "identical support" rule provides each CETC with the same per-line, high-cost universal service support amounts that the ILEC in whose service area the CETC is providing competing service receives. CETCs serving in rural ILEC high-cost areas receive high-cost support from the rural high-cost mechanism, while CETCs serving in non-rural ILEC high-cost areas receive support from the non-rural mechanism. Although initially well-intentioned as supporting the FCC-created universal service principle of competitive neutrality, the rule's application has resulted in a gross misuse of universal service support. There is clear data that high-cost support to CETCs has been the primary cause of the significant growth in the high-cost support fund in recent years. As the FCC has stated, while high-cost support to ILECs has been flat since 2003, support to CETCs, in the seven years from 2001 through 2007, had grown from under \$17 million to \$1.18 billion – an average annual growth rate of over 100 percent.<sup>30</sup> In 2009, CETCs, of whom the vast majority are wireless carriers, are projected to receive 49% of the non-rural high-cost fund (\$166 million of \$337 million) and 29% of the rural high-cost fund (\$560 million of \$1.93 billion). In total, in 2009 CETCs are projected to receive \$1.4 billion in federal high cost (rural and non-rural) support, interstate access support and interstate

<sup>29</sup> USAC Second Quarter 2009 Report HC-15.

<sup>30</sup> *In the Matter of High-Cost Universal Service Support; Federal-State Joint Board on Universal Service; Alltel Communications, Inc., et al. Petitions for Designation as Eligible Telecommunications Carriers; RCC Minnesota, Inc. and RCC Atlantic, Inc. New Hampshire ETC Designation Amendment*, WC Docket No. 05-337; CC Docket No. 96-45, Order, 23 FCC Rcd 8834, 8837-38 ¶ 6 (2008) (*Interim CETC Cap Order*), *appeal pending sub nom., Rural Cellular Association, et al. v. FCC*, No. 08-1284 (D.C. Cir., petition for review filed Aug. 29, 2008).

common line support, or nearly one-third of these federal universal service support funds, without any requirement that their costs justify this support.

Thus, to the extent a CETC's costs to provide wireless service are less than the ILEC's costs to provide wireline service; the identical support rule provides an inefficient incentive to the CETC to provide service in the ILEC's service area.<sup>31</sup> This inefficient incentive is even more pronounced in rural ILEC service areas. Because rural carriers receive universal service support based on their embedded costs, when a rural carrier's cost per-line increases -- such as when it loses lines to CETCs -- its high-cost support per-line increases as well. And, pursuant to the FCC's identical support rule, this higher per-line support is available to CETCs in the rural ILEC's service area. But, because the CETC receives this high-cost support irrespective of its own costs to provide service, there is little, if any, incentive for the CETC to invest in or expand its facilities to areas with lower population densities.<sup>32</sup> The Joint Board and the FCC have recognized that high-cost support should no longer be used in this inefficient manner, and the FCC has as an interim measure frozen universal service support to CETC at March 2008 levels.<sup>33</sup>

But this is not enough. In order to return the high-cost fund to its core principle of universal service, the identical support rule must be eliminated. The Joint Board has recommended and the FCC has tentatively concluded that the identical support rule should be eliminated and that going forward any high-cost support to CETCs must be based on their own costs of providing the supported services.<sup>34</sup> Universal service to high-

<sup>31</sup> And, given the significant increase in wireless carriers designated as ETCs, it seems likely that their costs are less than those of the ILECs in the areas in which the wireless carriers have sought ETC designation.

<sup>32</sup> *In the Matter of High-Cost Universal Service Support; Federal-State Joint Board on Universal Service*, WC Docket No. 05-337; CC Docket No. 96-45, Notice of Proposed Rulemaking, 23 FCC Rcd 1467, 1471-72 ¶ 10 (2008).

<sup>33</sup> *Interim CETC Cap Order*, 23 FCC Rcd at 8837 ¶ 5, 8838 ¶ 7, 8839 ¶ 9, 8850 ¶ 38.

<sup>34</sup> *See id.* at 8846-48 ¶¶ 26-31.

cost areas is most efficiently met by supporting only one carrier in a high-cost area. If, however, more than one carrier in an area is to be supported, support for each carrier should be based on its own costs to provide the supported service.

On a side note, high-cost support also should not be available to subsidize free “chat” services and other access stimulation schemes. In the high-cost program there is evidence that at least one ETC is receiving a few million dollars in high-cost support for thousands of lines provided to business partners that are virtually locating their business services in the ETC’s “high-cost” service area.<sup>35</sup> The ETC functions primarily as part of an “access stimulation” scheme designed to artificially pump interstate access traffic through a local exchange carrier (LEC) switch at unreasonably high access rates. The scheme functions by the sharing of the access revenues between the LEC and the provider of the “free” service. Access stimulation constitutes a major threat to the telecommunications infrastructure.<sup>36</sup> The manner in which the thousands of lines for which the ETC is receiving high-cost support are physically set up raises questions as to whether there are any significant local loop costs (or any local loop costs at all) that would justify high-cost support for these lines. And, the ETC does not otherwise serve any residential or business customers in the high-cost area at all.<sup>37</sup> It is not appropriate to use high-cost funds that are intended to provide affordable rates and services reasonably comparable to those of urban areas for consumers located in rural and high-

---

<sup>35</sup> See generally Opposition of AT&T Inc., CC Docket No. 96-45, filed Mar. 31, 2008; Opposition of Qwest Communications International Inc. to Aventure’s Petition for Waiver, CC Docket No. 96-45, filed Mar. 31, 2008 (Qwest Mar. 31, 2008 Opposition).

<sup>36</sup> Access stimulation is described in detail in *In the Matter of Qwest Communications Corporation, Complainant, v. Farmers and Merchants Mutual Telephone Company, Defendant.*, File No. EB-07-MD-001, Memorandum Opinion and Order, 22 FCC Red 17973 (2007); *on recon.*, 23 FCC Red 1615 (2008).

<sup>37</sup> Qwest Mar. 31, 2008 Opposition at 2, 6-7.

cost areas to essentially support an access stimulation scheme. Measures should be put in place to prevent such abuses of universal service support.

**C. There Should Be Universal Service Support For Broadband Deployment To Unserved Areas.**

As Chairman Boucher, Congressman Terry, and many others have already recognized, it is time to aid universal access to broadband services through universal service support. Qwest currently offers broadband services to approximately 86 percent of the households in its region. In order to further expand its broadband footprint, Qwest must undertake costly upgrades to its network. In the absence of additional federal assistance, however, such upgrades are not economically feasible in many rural areas.

The grants for broadband deployment that will be provided by the National Telecommunications and Information Administration and the Rural Utilities Service pursuant to the American Reinvestment and Recovery Act are a start, but no one believes that this money will result in ubiquitous deployment of high speed broadband deployment to currently unserved areas. There remains a crucial role for universal service funding.

Qwest agrees with the Joint Board that the primary purpose of any broadband deployment subsidization should be to aid construction of facilities in *unserved* areas.<sup>38</sup> But, high-cost support should not provide on-going operational subsidies. Nor should the support subsidize competition or build duplicate networks. For the unserved areas, only a single provider of broadband, regardless of the technology used, should receive federal universal service high-cost support.

---

<sup>38</sup> *Recommended Decision*, 22 FCC Red at 20481-82 ¶¶ 12-15.



Qwest supports using a competitive bidding mechanism that would award broadband deployment support to one winner – the lowest qualified bidder. To maintain the competitive neutrality of the program, any provider that meets certain pre-established service quality and pricing standards should be permitted to bid.

Consistent with these statements, Qwest has previously proposed a new federal universal service program that would provide one-time grants to selected applicants to deploy broadband to unserved areas.<sup>39</sup> Qwest commends that proposal to this Subcommittee for its consideration in crafting a successful, efficient, and cost-effective universal service support program for broadband deployment to unserved areas.

Further, critical to any proposal to spur broadband deployment is consideration of the proposal's likely effectiveness in accomplishing the goal of "ensuring that broadband is available to all Americans,"<sup>40</sup> and means of measuring that effectiveness. To design an effective universal service program for enabling broadband deployment to unserved areas, Congress should not only create the support mechanism, but also set clear, realistic goals and performance measures for the program, and ensure well-targeted, sufficient support for the areas that need broadband deployment. Critical to this effort is tying broadband support directly to the costs to deploy broadband to unserved areas.

Now is the time to use both the positive and negative lessons of the current universal service support mechanisms to create a new support mechanism for broadband deployment to unserved areas that implements the successes but does not replicate or

---

<sup>39</sup> See *ex parte* Letter to Ms. Marlene H. Dortch, Secretary, Federal Communications Commission, from Ms. Melissa Newman, Qwest, dated July 9, 2007, CC Docket No. 96-45 and its attached "Qwest's Proposal For Broadband Deployment To Unserved Areas."

<sup>40</sup> *In the Matter of High-Cost Universal Service Support, etc.*, WC Docket No. 05-337, *et al.*, Order on Remand and Report and Order and Further Notice of Proposed Rulemaking, FCC 08-262, at App. A ¶ 4 (rel. Nov. 5, 2008), *appeals pending sub nom.*, *Core Communications, Inc. v. FCC*, Nos. 08-1365, *et al.* (D.C. Cir. filed Nov. 21, 2008).

perpetuate the problems of those mechanisms. By instituting a new USF strategy to spur broadband to unserved areas, Congress can recognize that broadband—the fundamental technology of the twenty first century economy—must be supported in a rational and cost effective fashion.

### **III. CONCLUSION.**

Congress has an important opportunity here to adopt the successes and correct the mistakes of the current universal service high-cost program and structure an improved program for supporting universal access to basic telephone service and a new program for supporting universal access to broadband service. As an incumbent local telephone provider in fourteen states and a broadband provider, Qwest applauds this Subcommittee's attention to these universal service issues.

Again, thank you for the opportunity to testify today on these important issues. I look forward to your questions.

Mr. BOUCHER. Thank you very much, Mr. Davis.  
Mr. Lubin, we will be pleased to hear from you.

**STATEMENT OF JOEL E. LUBIN**

Mr. LUBIN. Good morning. Thank you, Chairman Boucher, Ranking Member Stearns and members of the subcommittee for inviting me here today. AT&T is a long-time supporter of our national policy of universal service and of recent efforts to sustain that policy through meaningful reform. In this regard, we salute your leadership and the work of the entire committee.

AT&T is the single largest provider of telephone service in rural America today. AT&T provides service to 7 million rural telephone customers. AT&T remains committed to serve our customers regardless of where they live and where they work. AT&T's unique experience serving a diverse set of customers has shown us the value of broadband services.

Today's hearing is on point. The current universal service high-cost system is broken and will not create the proper incentives for broadband deployment in high-cost areas. Let me explain with a personal experience of mine that happened 5 years ago. Five years ago, my daughter and son-in-law came to us and said we have got some good news and bad news. I said share the bad news first. They said well, we live 6 miles away today, we are moving 6,000 miles tomorrow. I said what is the good news. The good news is, we will back in about 1 or 2 years but I already got online, I have an apartment, I got a broadband connection, and did you ever hear about this thing called voice over the Internet. I said yes. They said well, you know what, I can even keep the same local number. That was a big deal. That was a big deal for them because they didn't have to send out a number to everyone. It was a big deal for my wife and I because we could be in contact as a local call speaking to our granddaughter virtually every day.

Let me try to unpack what I just said. I call old technology, let us call that the narrowband local service that you know and you have today. That narrowband pipe is paid by a combination of local rate line items on a customer's bill, State and federal access charges paid by carriers that are then in turn recovered not from that particular customer but from a host of customers including that one who has the pipe. In addition, it recovers who are paid by existing federal and State universal service funds. For this old technology to work, it is essential to know where the call originated and terminated. By the way, I am going to describe a new technology where it just doesn't matter. The new technology, let us call it a broadband pipe. It is paid directly by the end user. You will not need to know where the call, I actually should say packets, where the packets originate and terminate. Just like when my kids moved 6,000 miles away, I still dialed the same number and lo and behold it arrived and we spoke.

I am sharing this story because it clearly shows that broadband technology is a disruptive technology. It simply redefines the game including the local calling area, not just to be the small local calling area but it redefines it to be in effect the whole USA or, in my example, the globe. In a broadband world, there are no access charges. There is no federal local service line charge on the bill. It

also turns out that the broadband service offers much more capability to the customers. That is why we are talking about it. And I hope you see that it doesn't have the complexity of the old narrowband pipe nor do I hope we ever take the baggage of the old technology and drive it into the new world. What a shame that would be.

So what to do? I would like to identify three things, because one needs to start thinking about a comprehensive solution to the dilemma and the issue is, do I want broadband deployed. We will talk about that shortly. But comprehensive reform needs to address three things.

First, number one, we need to replace the existing collection mechanism from interstate retail revenues to a broader based collection mechanism which we would suggest telephone numbers or a combination of telephone numbers and connections, which is a more stable collection mechanism, reform intercarrier to preserve universal service during the transition to a fully deployed broadband world, and let me very clear on this point. Access charges are going to vaporize. They are going to go away. They are not going to exist, and it is an issue that needs to be dealt with. Reform of the existing federal high-cost funding mechanism to promote deployment of next-generation broadband and expanded and improved wireless service in rural areas is important.

I would like to make one final point, and we need to clearly understand adjusting to the new world, this old world where you have very small local calling areas, and I am going to focus on a small rural calling area. That small rural calling area may have a local rate that is 40 to 50 percent lower than the urban rate but yet the cost of that service in the rural areas could be 5, 10, 20 or more times greater than the cost in the urban area. I just observe that the local calling area of the old world is going to ultimately expand to be in effect the whole USA or maybe the globe, and the issue here ultimately is, how do we reconcile these differences and create that comprehensive solution.

My final point: remember, universal service funds and access charges didn't exist 25 years ago in 1984 and access charges won't exist in a broadband world.

I look forward to your questions and working with you to find solutions. Thank you.

[The prepared statement of Mr. Lubin follows:]

STATEMENT OF JOEL E. LUBIN  
VICE PRESIDENT – PUBLIC POLICY  
AT&T SERVICES, INC.

BEFORE:

UNITED HOUSE OF REPRESENTATIVES  
COMMITTEE ON ENERGY & COMMERCE  
SUBCOMMITTEE ON COMMUNICATIONS, TECHNOLOGY & THE INTERNET  
“UNIVERSAL SERVICE: REFORMING THE HIGH-COST FUND”

March 12, 2009

Thank you, Chairman Boucher and Congressman Stearns, for inviting me to testify at today's hearing. My name is Joel Lubin, Vice President – Public Policy, at AT&T. In that capacity, I am responsible for the development of and economic support for state and federal policy and planning initiatives. As you know, AT&T is a long-time supporter of our national policy of universal service and of recent efforts to sustain that policy through meaningful reform. We applaud your continued leadership on this thorny issue and appreciate the opportunity to share our perspectives on the health and future of the Universal Service Fund.

AT&T is the single largest provider of telephone service to rural America. In fact, we serve more than *seven million* rural access lines. At the same time, AT&T receives a disproportionately lower share of high-cost funding to provide this service. Under similar conditions, other carriers have divested their high-cost lines, or declined to serve rural areas. AT&T, however, remains committed to serving its customers. But as AT&T and other carriers across America have experienced firsthand, insufficient and unstable universal service funding not only threatens the continued quality of today's legacy services, but it also is a major deterrent to investment in advanced, broadband facilities and services.

Put simply, the current universal service high-cost support system is broken. Under today's regime, some carriers do not receive support for serving their high-cost areas and thus have no incentive to deploy broadband in those areas; others are using federal high-cost support to deploy broadband facilities without clear regulatory authority to do so; and, under the FCC's current rules, multiple providers receive support for serving customers in the same geographic area. The result: high-cost funding has increased 54% in the last five years — and is racing to exceed that level. At the same time, broadband technology is disrupting the very mechanisms and methodologies employed to support the fund. In a broadband world, there are no access charges. There is no interstate subscriber line charge on the bill. Indeed, the most fundamental touchstones of the existing system — including the basic distinctions between interstate and intrastate services — are rendered largely meaningless in a broadband enabled world that eschews artificial regulatory constructs in favor of fostering innovation. For this reason, regulators cannot continue to tinker around the edges of universal service and access charge reform. The incremental steps that have been taken to date are inadequate and the lack of comprehensive reform is hindering broadband deployment.

There are no easy answers to the thorny questions surrounding universal service reform. And, we acknowledge that there are legitimate concerns over steps that could dramatically or uncontrollably expand the fund — or even whether it is an appropriate support tool for this century's communications needs. Setting the purpose and policy for the universal service fund — what areas need to be supported; what services should receive support; who will pay to have those services delivered; and how much are we willing to pay? — are not, however, questions for a carrier; those are questions to be answered by lawmakers. Nonetheless, against the backdrop of an apparent desire on the part of lawmakers and regulators to engender a sensible evolution of

the universal service system to support next-generation technologies, AT&T respectfully suggests the following guiding principles for comprehensive reform.

1. Reform the existing federal high cost funding mechanisms to promote – *explicitly* – the deployment of next generation broadband, and expanded and improved mobile wireless service, in rural areas.
2. Replace the existing revenues-based contribution mechanism with a telephone numbers/connections-based mechanism.
3. Reform the intercarrier compensation regime to preserve universal service during the transition to a fully deployed broadband environment.

With specific reference to reformation of the high-cost fund to promote broadband deployment in truly rural/high-cost areas, AT&T proposes a competitive application process. This competitive process would be more fiscally responsible than today's regime, in which some carriers receive thousands of dollars in recurring high-cost support per customer and others receive support for providing POTS to areas in which competition is thriving. AT&T's proposal would re-focus high-cost support, target this support to unserved areas, and have providers compete to provide access to broadband and voice services in these areas. Only one entity would be selected to provide access to broadband service in a particular geographic area and that winning applicant would receive project-based funding. In other words, providers would receive a precise amount of support and in exchange would commit to serving the area.

To maximize the existing levels of high-cost support, AT&T has further proposed transitioning almost all high-cost support amounts distributed through the legacy mechanisms to two new broadband funds. This transition would be straightforward and predictable for mobile wireless carriers – designated as competitive ETCs or CETCs. Over a five-year period, all CETC support would be transitioned in 20% increments to a new Advanced Mobility Fund. In a mere five years, all legacy CETC support would be transitioned to this new fund and, thus,

completely detached from the amount of support received by ILECs. Through this new fund, mobile wireless providers would apply to provide mobile wireless broadband Internet access service and voice communications capabilities in unserved areas. They would commit to build out facilities in that FCC-designated area over a two-year period and offer service for a five-year period following the completed build out. There would be no expectation of any additional funding after that 7-year period. The transitioned support would remain dedicated to the state in which the CETC received it until there are no remaining unserved areas within that state, at which time the support would return to the general Advanced Mobility Fund and the FCC would redirect it to another state.

The transition of legacy federal high-cost dollars to the new fixed broadband fund – or Broadband Incentive Fund – would be different. Unlike CETCs and ETCs, ILECs have state-imposed carrier of last resort (COLR) obligations and their local retail rates are typically regulated by the states. If a state provides complete retail pricing deregulation to a price cap carrier, any federal high-cost support received by that ILEC would be transitioned to the Broadband Incentive Fund. The timing of this transition would correspond to the timing of the pricing deregulation set by the state. It is AT&T's view that, once a price cap LEC receives complete retail pricing deregulation, it no longer needs federal high-cost support to provide voice service. To give states an incentive to provide this relief to their price cap LECs, AT&T proposes that any federal high-cost support received by price cap LECs in a state would transition to the new broadband fund, but remain dedicated to that state until that state no longer has any areas within its price cap carriers' footprint that are unserved by broadband. Once that occurs, the broadband dollars for that state would return to the general Broadband Incentive Fund and would be directed to another state that continues to have unserved areas. Like the



Advanced Mobility Fund, fixed network broadband providers would apply to provide broadband Internet access service and voice communications capabilities in FCC-designated unserved areas. The winning applicant would commit to build out facilities throughout the designated area within two years and commit to provide access to broadband and voice services for a five-year period. Again, there is no expectation of continued funding after that term is over.

Likewise, significant reform of the *funding contribution* mechanism for universal service is essential. The percentage of interstate telecommunications revenue that customers pay each month is only increasing. This will happen even if the FCC or Congress were to cap the total universal service fund. Today, universal service contributors are assessed based on their interstate telecommunications revenues. Bundles of information and telecommunications services are commonplace as are one price all-you-can-eat local and long distance bundles. Since entities contribute only on interstate telecommunications revenues, contributors are required to identify the interstate telecommunications component of these bundles. Information/telecommunications service bundles can be exceedingly complex and identifying the assessable component of that bundle can be subject to good faith interpretations of the Commission's rules and requirements, which can vary by contributor. Some contributors will be more aggressive than others when interpreting FCC rules in a manner that reduces their contribution obligation in order to obtain a competitive advantage. Because of this unfortunate incentive, the contribution factor could continue increasing even if the total size of the universal service fund was capped.

Universal service contributions based on telephone numbers would be meaningfully more transparent (particularly to consumers) and fairer among contributors. Counting telephone numbers would be straightforward for contributors and easy for the regulators to audit. It is also

technology neutral – a telephone number would be counted and assessed the same amount regardless of the technology being used to allow the end-user consumer to make or receive a call. Last September, AT&T and Verizon filed a telephone number-based contribution methodology proposal. We also filed information demonstrating that, if the FCC adopted this proposal, most residential customers would experience a decrease in the USF pass-through charges that appear each month on their telephone bills. In this instance, what is good for consumers is also good for contributors and for the health of the fund: while interstate telecommunications revenues continue to decrease, the number of telephone numbers in use continues to increase.

Finally, there can be no doubt that access reform is a critical component of effective and lasting universal service reform. To accomplish meaningful – and necessary – universal service reform, Congress and the regulators cannot ignore the dysfunctional and antiquated system of implicit subsidies that, despite Congress's admonition 13 years ago, still exists today. The circuit-switched networks and the market structure on which the existing intercarrier compensation regime was based have been replaced by today's robustly competitive environment. Now, a multitude of providers offer a vast array of "any-distance" services over a variety of technology platforms. While these platforms rely heavily on certain pieces of the PSTN, in many cases they bypass the access charges that regulators require local exchange carriers to collect in order to maintain that infrastructure. As a result, access revenue is drying up and will eventually disappear as savvy customers migrate to bypass technologies – technologies that are not subject to the access charge regime and, accordingly, are more cost effective to customers. AT&T has, accordingly, long advocated for comprehensive intercarrier compensation reform, and has worked extensively to bring parties with disparate interests

together to reach consensus on a workable reform plan. We look forward to working with you and this subcommittee on furthering that effort.<sup>1</sup>

AT&T's proposals surely are not the only viable path to universal service reform. They are meant as flexible options rooted in the real-world challenges brought by swift and dynamic technology and marketplace shifts. There are other good ideas, and AT&T is committed to working with Congress and the FCC to find the best path forward. Likewise, given the current economic conditions, there is no guarantee that reform steps will lead any particular provider to increase its investments and deployments. But about one thing there can be no reasonable doubt: If the goal is a sustainable, fair and properly funded system that supports next generation technologies, the universal service system must undergo dramatic transformation.

Thank you and I look forward to your questions.

---

<sup>1</sup> Attached to this written statement is AT&T's letter to the FCC outlining in detail AT&T's intercarrier compensation proposals and recommendations; see letter from Robert Quinn, Senior Vice President – Federal Regulatory, AT&T Services, Inc., to Chairman Kevin Martin, Federal Communications Commission, dated July 17, 2008.



Robert W. Quinn, Jr.  
Senior Vice President  
Federal Regulatory

AT&T Services, Inc.  
1120 20<sup>th</sup> St. NW, Suite 1000  
Phone 202 457-3851  
Fax 832 213-0243

July 17, 2008

Chairman Kevin Martin  
Federal Communications Commission  
445 12th Street, S.W.  
Washington, D.C. 20554

**Re: *Developing a Unified Inter-carrier Compensation Regime*,  
CC Docket No. 01-92; *High-Cost Universal Service Support*, WC Docket No. 05-337;  
*Federal-State Joint Board on Universal Service*, CC Docket No. 96-45; *Inter-carrier  
Compensation for ISP-Bound Traffic*, WC Docket No. 99-68; *Establishing Just and  
Reasonable Rates for Local Exchange Carriers*, WC Docket No. 07-135**

Dear Chairman Martin:

As the Commission repeatedly has acknowledged for well over a decade, the nation's inter-carrier compensation regime is badly broken and desperately in need of a comprehensive overhaul.<sup>1</sup> There is no serious disagreement on this point because policy makers, service providers and other stakeholders all recognize that the pre-Internet era assumptions around which federal and state regulators designed this regime are no longer valid. The Commission's current rules focus entirely on a rapidly obsolescing POTS network architecture and business model and, in so doing, retard the inevitable transition from a narrow-band, voice-centric infrastructure to the broadband, any-application infrastructure of the 21<sup>st</sup> century. Deployment of this 21<sup>st</sup> century broadband infrastructure to rural areas depends on refocusing subsidy mechanisms on broadband network expansion and away from the PSTN business model of the past. Reforming inter-carrier compensation and universal service rules<sup>2</sup> are thus necessary elements to any policy maker's broadband agenda.

<sup>1</sup> *Access Charge Reform*, 12 FCC Rcd 15982, ¶¶ 31-32 (1997) (the existing system is "sustainable only in a monopoly environment" and the "new competitive environment envisioned by the 1996 Act threatens to undermine this structure over the long run"); *Developing a Unified Inter-carrier Compensation Regime*, Notice of Proposed Rulemaking, 16 FCC Rcd 9610, ¶¶ 11-18 (2001) (describing flaws in existing inter-carrier compensation regime, including numerous "opportunities for regulatory arbitrage created by the existing patchwork of inter-carrier compensation rules"); *Developing a Unified Inter-carrier Compensation Regime*, Further Notice of Proposed Rulemaking, 20 FCC Rcd 4685, ¶ 3 (2005) (observing that the current system "create[s] both opportunities for regulatory arbitrage and incentives for inefficient investment and deployment decisions" and explaining the "urgent need to reform the current inter-carrier compensation rules").

<sup>2</sup> See AT&T Comments, WC Docket No. 05-337, CC Docket No. 96-45 (filed April 17, 2008) (AT&T USF Comments) (proposing a framework to reform the Commission's high-cost support mechanisms in order to speed deployment of broadband service to unserved areas).

Chm. Martin  
 July 17, 2008  
 Page 2

AT&T is, therefore, very encouraged by the Commission's renewed commitment to intercarrier compensation reform<sup>3</sup> and we are prepared to work constructively with the Commission and the industry to reach a comprehensive solution. We continue to believe that the Missoula Plan provides a solid blueprint for action: the Plan has broad industry support and carefully addresses each interrelated component of intercarrier compensation reform.<sup>4</sup> But if the Commission is unprepared to adopt the Missoula Plan itself, it should use the core element of that Plan – unifying terminating intercarrier compensation regimes and charges – as its goal for comprehensive reform. Moreover, AT&T believes that a benchmark-based framework for rate rebalancing and targeted universal service support can appropriately balance the impact of the resulting access revenue reduction. We propose such a framework for reform based on this goal in Section II, below.

If the Commission does not tackle comprehensive reform this year, it will have no choice but to keep applying regulatory band-aids as each new intercarrier compensation problem arises or, more realistically, long after each problem has arisen and has caused significant damage. At a minimum, one such band-aid *must* be a Commission response to the D.C. Circuit's decision directing it to explain the legal basis for its ISP-bound compensation rules in a final, appealable order by November 5, 2008.<sup>5</sup> And as discussed below in Section III, there is a litany of other pressing intercarrier compensation issues that also demand a timely Commission response. As experience illustrates, however, this game of regulatory "whack-a-mole" is grossly inefficient because it addresses only the symptoms of the underlying regulatory problem, but not the problem itself: an unsustainable intercarrier compensation system designed long ago for a vastly different communications marketplace. So long as that underlying problem persists, the symptoms will worsen and multiply, and addressing them as they arise and in an ad-hoc fashion will only delay, not prevent, the collapse of the current system. Comprehensive reform is by far the healthier and more rational solution and it is the only solution that serves the long-term interests of America's consumers.

#### **I. The Existing Intercarrier Compensation Regime Is Deteriorating Rapidly, and Comprehensive Reform Is Urgently Needed.**

Federal and state regulators designed the current intercarrier compensation regime in large measure to encourage deployment of telecommunications infrastructure across the country and ensure that all Americans have access to affordable local telecommunications services. These twin goals were accomplished, in part, by requiring carriers offering those services to recover a significant portion of their costs through access charges assessed on interconnecting

<sup>3</sup> See *Interim Cap Clears Path for Comprehensive Reform, Commission Poised to Move Forward on Difficult Decisions Necessary to Promote and Advance Affordable Telecommunications for All Americans*, News Release, May 2, 2008.

<sup>4</sup> See *Comment Sought on Missoula Intercarrier Compensation Reform Plan*, Public Notice, DA 06-1510 (released July, 25, 2006) (noting that the Missoula Plan was the product of a 3-year process of industry negotiations led by NARUC and its supporters include, among others, AT&T, Global Crossing, Level 3 Communications, and 336 members of the Rural Alliance).

<sup>5</sup> *In re: Core Communications, Inc.*, No. 07-1446, 2008 WL 2649636 (D.C. Cir. July 8, 2008).

Chm. Martin  
 July 17, 2008  
 Page 3

interexchange carriers, thereby providing local exchange carriers an implicit subsidy to keep rates for local services low. While that regime proved workable in a monopoly environment in which access minutes remained stable, or increased, year-over-year, it could no longer provide the support necessary to sustain the underlying network infrastructure in telecommunications markets opened to competition, as Congress anticipated. For that reason, Congress directed the Commission and the states in 1996 to undertake comprehensive universal service reform to replace implicit subsidy mechanisms (including those contained in intercarrier payments – such as access charges) with explicit support mechanisms that will achieve universal service objectives in a competitive environment.

While some progress has been made to rebalance rates and replace implicit subsidies with explicit support mechanisms, far more work needs to be done to complete comprehensive intercarrier compensation and universal service reform. In the meantime, the circuit-switched networks and their monopoly market structure on which the existing intercarrier compensation regime was based have been replaced by today's robustly competitive environment in which a multitude of providers offer a vast array of "any-distance" communications services over a variety of more technically efficient or customer-desired wireline, wireless and broadband platforms. And while those platforms continue to rely heavily on certain pieces of the old PSTN for critical infrastructure (e.g., copper loop distribution cables), in many cases, they bypass the access charges that regulators require local exchange carriers to collect in order to maintain that infrastructure. Indeed, between 2000 and 2006 incumbent carriers lost more than 249 *billion* access minutes, which represents nearly one-third of their total access minutes.<sup>6</sup>

The root problem with the existing intercarrier compensation system is twofold. First, it forces carriers to recover a substantial portion of their costs through usage-based revenue streams from other carriers. Second, it establishes radically different intercarrier compensation rates for a given call based on outmoded regulatory distinctions relating to the supposed endpoints of the call (e.g., intrastate vs. interstate, local vs. interexchange, intraLATA vs. interLATA, and intra-MTA vs. inter-MTA), or the type of communications provider originating or terminating the call (e.g., wireline vs. mobile wireless). These distinctions reflect defunct industry business models in which (1) different carriers provided different services based on geographic boundaries; and (2) different providers offered entirely distinct and non-competing services using different technologies. But, in a world in which competing service providers offer distance-agnostic bundles of communications services over competing platforms, such distinctions no longer make any sense, and the cross-subsidy mechanisms those distinctions were intended to facilitate can no longer work. For example, technological advances over the past decade have allowed consumers to migrate from traditional wireline long distance services, whose rates recovered the underlying access charges assessed by local exchange carriers, to VoIP and wireless services, as well as instant messaging, social networking sites, and simple email, which typically do not pay such access charges. Yet, even as access minutes, and the implicit support they generate, evaporate from incumbent carrier networks, the intercarrier compensation system remains rooted in the assumption that access charges will remain a viable means to maintain local telephone infrastructure in perpetuity.

---

<sup>6</sup> Universal Service Monitoring Report, CC Docket No. 98-202, Table 8.3 (2007).

The current intercarrier compensation regime – and the Commission’s failure to resolve fundamental questions about its applicability to certain types of traffic (e.g., VoIP) – has encouraged rampant, competition-distorting arbitrage of intrastate and interstate access charge revenues that support universal service policy objectives. In particular, the disparate charges that may apply to traffic depending on how a provider purports to self-classify that traffic sends artificial price signals to the market. This system has created entire sub-industries – such as traffic-pumpers or CLECs specializing in IP-originated and/or ISP-bound traffic – which rise and fall solely as a result of regulatory uncertainty or loopholes that are exploited for as long as possible. Because such providers benefit so heavily from gaming the system, at least in the intermediate term, they have little incentive to focus on creating genuine consumer value. Likewise, providers disadvantaged by such gamesmanship must devote their own time and resources to expensive litigation. The resulting controversies produce huge transaction costs and investment uncertainty throughout the industry.

## II. Benchmark-based Framework for Comprehensive Reform

To achieve comprehensive reform, the Commission must facilitate industry-wide rate rebalancing to substantially eliminate today’s arbitrary regulatory disparities in terminating intercarrier charges. To do this, the Commission should adopt a framework that begins by establishing a national comparability benchmark, which will promote the reasonable comparability of end-user rates in accordance with section 254(b)(3) of the Act, and then by adjusting a number of variables in a systematic fashion. The simplest way to conceptualize the variables at play here (terminating intercarrier charges, SLCs, and federal universal service support) is to view them as interdependent “dials” that can each be turned to adjust a flow of revenue or to achieve a specific policy outcome. Optimally, the Commission should set these reform dials so that they collectively minimize arbitrage and promote the transition to broadband, thus furthering the goals of section 706. We introduce the critical “dials” and their purpose below, and then discuss both the national comparability benchmark and the reform dials in more detail in the following sections.

- **Terminating intercarrier rates:** terminating intercarrier rates for intrastate, interstate, and local calls should be transitioned to a uniform structure and unified at relatively low reciprocal compensation levels (i.e., below existing interstate access rate levels).<sup>7</sup> Absent such reform, incentives to engage in arbitrage will remain.
- **Federal subscriber line charges:** carriers with relatively low end-user rates should be given at least the *opportunity* to recover directly from their subscribers a greater percentage of their costs of providing service. To that end, the Commission should increase the federal cap on SLC charges of such carriers, as discussed further below, to give those carriers the regulatory freedom – but not necessarily the mandate – to increase end-user rates to mitigate any reduction in access revenues.

<sup>7</sup> See, e.g., *The Missoula Plan: Policy and Legal Overview* and Attachment A (included in the July 24, 2006 Missoula Plan filing made by NARUC in WC Docket No. 01-92) (providing the legal authority for Commission-ordered reductions in intrastate access charges).

Chm. Martin  
 July 17, 2008  
 Page 5

- **Universal service:** the Commission should provide targeted supplemental federal universal service support to offset a portion of some carriers' reduced access revenues. Although the size of the fund must be controlled, such support is an essential backstop to ensure that end-user rates remain reasonably comparable during the transition from the narrow-band business model and universal service paradigm to the broadband world.

#### **A. National comparability benchmark.**

In order to achieve unified terminating intercarrier rates for interstate, intrastate and local traffic, the Commission will need to reduce existing access charge rates below current levels and, in the course of doing so, it will need to determine how much of these access revenue reductions any particular carrier should be permitted to recover through end-user charges and federal universal service support. To accomplish that task, we propose the use of a national comparability benchmark similar in concept to the benchmark proposed by supporters of the Missoula Plan and several state commissions.<sup>8</sup> That mechanism, among other things, was designed to ensure rate comparability among the states so that the customers of carriers operating in states that have acted to lower intrastate access charges, establish state universal service high-cost funds, and/or increase local rates do not shoulder the cost of the access shift for carriers in other states that have taken none of these steps. AT&T proposed a similar benchmark in its USF Comments.<sup>9</sup> AT&T believes that such a benchmark should serve as the foundation of any comprehensive intercarrier compensation reform framework. The basic attributes of a benchmark system are simple and straightforward as we outline below.

The Commission should establish a national comparability benchmark that is a fixed dollar amount (e.g., \$XX dollars) reflecting what consumers generally pay for basic telephone service. In determining the appropriate dollar amount, the Commission should pay particular attention to the end-user rates<sup>10</sup> in states that already have taken significant steps, described above, to reform intercarrier compensation, and not the end-user rates in states that have kept such rates artificially low by avoiding reform.

Once established, the national comparability benchmark would be used as follows. For the applicable geographic area, the Commission would compare the national benchmark to each carrier's own calculation of the following components: its rate for basic local telephone service, SLCs (including state SLCs, if applicable) and the amount of any end-user charge attributable to the state's high-cost universal service fund.<sup>11</sup> If the sum of these components is below the

<sup>8</sup> Letter from State Commissions and Missoula Plan Supporters to Marlene Dortch, Federal Communications Commission, CC Docket No. 01-92 (filed Jan. 30, 2007).

<sup>9</sup> AT&T USF Comments at 27-29.

<sup>10</sup> As used here, the term "end-user rates" would include the rate for local telephone service, any federal and state SLC, and any end-user charge attributable to a state high-cost fund.

<sup>11</sup> AT&T does not propose including existing end-user line-item charges attributable to the *federal* high-cost support mechanisms because such contributions are already essentially comparable in the sense that all providers of interstate telecommunications are subject to the same federal contribution factor and most, if not all, such providers flow those contributions through to their end-user customers.



national comparability benchmark, the carrier would be expected to recover access reductions through federal SLC increases until it reaches the lower of the applicable SLC cap or the comparability benchmark. The benchmark thus acts as a ceiling on federal SLC increases. Access reductions in excess of the federal SLC increases allowed under the comparability benchmark could be recovered from targeted universal service support.

Thus, the purpose of the national comparability benchmark is to equitably apportion responsibility for the rate rebalancing needed to achieve unified terminating intercarrier rates among end users, carriers, states, and this Commission. It also is intended to ensure fairness to states that already have taken significant steps to reduce intrastate access charges, increase end-user rates, or provide explicit universal service funding.

#### **B. The reform dials and the impact of different settings.**

Once the Commission sets the national comparability benchmark, it can turn the various intercarrier compensation/universal service reform dials to a variety of different settings based on its policy objectives. But because these variables are mutually interdependent, each twist of a dial results in trade-offs. For example, if the Commission does not turn the SLC dial up to the levels proposed in the Missoula Plan (e.g., \$10 for certain residential lines), it will need to compensate by turning up one of the other dials, such as federal universal service funding. Below, AT&T offers its views on the impact of different dial settings in achieving reform.

##### *1. Terminating intercarrier charges.*

Terminating intercarrier charges (i.e., access charges and reciprocal compensation) constitute by far the most important variable for purposes of intercarrier compensation reform. Of all the intercarrier charges, terminating compensation has been the greatest source of uncertainty and disputes, and its erosion in the face of technological advancements, arbitrage and outright fraud is perhaps the most destabilizing factor affecting the industry. Moreover, the continuing uncertainty relating to the applicability of such charges to certain types of traffic threatens to undermine further broadband deployment, as well as development of the innovative service offerings made possible by such deployment, by encouraging business plans based not on customer needs or desires but on the exploitation of obsolete rules and efforts to counter such exploitation. The Commission should act decisively to require each carrier to apply a single low rate for all call terminations. For example, the Commission could turn the terminating access dial to set unified rates no higher than reciprocal compensation rates (or even a zero setting – bill and keep – across the board).

The precise rate levels would depend on the Commission's decisions concerning the size of the universal service fund and end-user rates. As we have noted, moving to a unified terminating rate will result in access revenue reductions that should be offset by these other revenue sources. The further the Commission turns the terminating rate dial, the more effective its reform of intercarrier compensation will be. Unified and low terminating rates will eliminate the incentive carriers currently have to disguise their traffic to take advantage of rate disparities and would result in fewer fights about whether particular traffic should be classified as local, intrastate, or interstate. Thus, rather than focusing their attention and resources on exploiting or

Chm. Martin  
 July 17, 2008  
 Page 7

closing regulatory loopholes, carriers will devote more attention to making their services more valuable to customers. This will seriously reduce, if not eliminate, the controversy over intercarrier compensation for VoIP and the problem of phantom traffic. *See* Section III, *infra*.

## 2. *Subscriber line charges.*

As terminating access charges are reduced, SLC caps should be subject to moderate increases for carriers below the comparability benchmark so that those carriers look first, though not necessarily entirely, to their own end users for recovery of their network costs. At least in places where end-user rates are artificially low today, effective reform of the intercarrier compensation regime cannot be achieved without turning up this dial. However, the extent to which this dial is turned will be governed by the comparability benchmark. And the Commission should set an absolute cap on the amount of the SLC increase.

For carriers below the comparability benchmark, raising SLC caps is more appropriate than passing costs on to other carriers – and, ultimately, to those other carriers’ end users – in the form of higher federal universal service charges. While competition may constrain carriers from raising the SLC to the maximum permitted level, for purposes of determining the appropriate amount of additional federal universal service support, any reform plan should impute to each carrier the maximum SLC increase allowed for that carrier up to the national comparability benchmark.

## 3. *Federal universal service support.*

The Commission should set the dial for federal universal service support at a level sufficient to ensure that the rates charged to end users in rural and high cost areas are reasonably comparable to rates charged in urban areas. The appropriate balance will depend on where the Commission sets the other intercarrier compensation dials. On the one hand, the size of the federal universal service fund cannot be allowed to expand without limit because end users overall must foot the bill for that fund. On the other hand, increasing universal service funding to cover some of the costs that are now recovered through intercarrier charges will likely be unavoidable if the Commission wishes to stay faithful to its other stated objectives and to the basic notion in section 254(b)(5) of the Act that funding must be “sufficient,” all of which is consistent with Congress’s mandate to make explicit all implicit subsidies.

# III. **If the Commission Cannot Achieve Comprehensive Intercarrier Compensation Reform, It Must Take Immediate Action to Address the Most Urgent Problems with the Current Regime.**

For all of the reasons discussed above, there is no long-term alternative to comprehensive reform. Nonetheless, if the Commission is unable to implement such reform this year, the Commission will need to take immediate action to remedy the most pressing problems plaguing the existing regime. If the Commission continues to let these problems fester, the consequences could be catastrophic both for the existing system and for any hope of future comprehensive reform.

#### **A. ISP-bound traffic.**

Under the Commission's existing rules, carriers that terminate ISP-bound traffic may no longer collect the TELRIC-based "reciprocal compensation" rates they recovered before 2001. In a 2001 order, the Commission determined that receipt of such rates generated economically irrational windfalls for CLECs that specialized in terminating ISP-bound traffic (and sometimes paid ISPs for the privilege of doing so).<sup>12</sup> The Commission remedied that arbitrage crisis by adopting a transition to bill-and-keep for this traffic, with the current termination rate set at \$0.0007. In 2002, the D.C. Circuit rejected the particular legal rationale the Commission chose for its rules on this subject but left the rules themselves intact because it concluded that, on remand, the Commission might well succeed in justifying the same rules under a different legal rationale.<sup>13</sup> In response to a petition for mandamus, the Commission recently promised the D.C. Circuit that it would take prompt action to address that legal question, either as part of comprehensive intercarrier compensation reform or separately.<sup>14</sup> The D.C. Circuit now has ruled that, unless the Commission keeps that promise, the Commission's rules regarding reciprocal compensation for ISP-bound traffic will be vacated, which would throw open the door to renewed regulatory arbitrage by CLECs. Consequently, irrespective of whether the Commission undertakes comprehensive intercarrier compensation reform (as it should), at a minimum, it must finally complete action on D.C. Circuit's remand.

As AT&T explained in a recent *ex parte*,<sup>15</sup> the Commission has ample authority to maintain its current rules under several independent legal theories. Each of these legal rationales is independent of the others, and each supports adopting bill-and-keep as the ultimate rule for ISP-bound traffic, subject to the Commission's discretion to maintain positive rates for a transitional period. To create greater industry certainty by minimizing the possibility of another judicial remand, the Commission should consider adopting a belt-and-suspenders approach under which it relies on each of these rationales in the alternative.

#### **B. Intercarrier compensation for VoIP traffic.**

One of the most destabilizing disputes in the telecommunications industry today concerns the appropriate treatment of VoIP traffic (*i.e.*, calls that take the form of VoIP on one end and ordinary PSTN traffic on the other). As AT&T explains in a petition it is filing contemporaneously with this letter,<sup>16</sup> the Commission should take immediate steps to resolve this set of issues before further damage is done.

<sup>12</sup> Order on Remand and Report and Order, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, 16 FCC Rcd 9151 (2001).

<sup>13</sup> *WorldCom, Inc. v. FCC*, 288 F.3d 429, 434 (D.C. Cir. 2002).

<sup>14</sup> Oral Arg. at 22-26, *In Re: Core Communications, Inc.* (D.C. Cir. May 5, 2008) (No. 07-1446).

<sup>15</sup> See Letter from Gary L. Phillips to Marlene Dortch, Federal Communications Commission, CC Docket No. 01-92 et al. (May 9, 2008).

<sup>16</sup> Petition of AT&T Inc. for Interim Declaratory Ruling and Limited Waivers, WC Docket No. \_\_\_\_ (filed July 17, 2008) ("*AT&T Petition*").

Many VoIP providers contend that the Commission's "ESP exemption" excuses them from paying access charges for interconnection with the PSTN. Most ILECs reject that position, observing, among other things, that the ESP exemption applies only to PSTN connections between enhanced service providers and *their own* subscribers rather than, as here, PSTN connectivity with *other* carriers' subscribers. The Commission's failure to resolve this issue has allowed innumerable disputes to rage before state commissions, courts and this agency.<sup>17</sup> Those disputes consume substantial resources and create significant regulatory uncertainty.

The Commission's failure to clarify the application of intercarrier charges to VoIP traffic has disserved both customers and the public interest, and it is long past time for the Commission to act. Accordingly, in a separate petition filed today, AT&T requests that, if the Commission does not adopt comprehensive reform, it declare on an interim basis that interstate terminating access charges apply to interstate interexchange VoIP traffic, intrastate terminating access charges applied to intrastate interexchange VoIP traffic that are equal to or less than interstate terminating access rates do not conflict with federal policy, and reciprocal compensation rates apply to the transport and termination of VoIP traffic that is not access traffic.

### C. Traffic pumping.

As AT&T has previously explained in greater detail,<sup>18</sup> "traffic pumping" is a form of arbitrage in which an ILEC or CLEC artificially inflates the volume of its traffic in a rural area in order to reap windfall profits from high access charges. That result undermines the regulatory premise of setting those access charges at such high levels. The ILECs and CLECs that engage in these schemes use a variety of techniques to increase traffic volumes, including offers of free or very low cost chat lines, conferencing services, voicemail, and international calling. These offers entice callers across the country and around the world to place millions of long-distance calls to telephone numbers assigned to rural ILECs or CLECs. Those carriers, in turn, impose millions of dollars in access charges on AT&T and other IXCs, which the LECs then share with the third parties who help them execute their traffic-pumping schemes.

Although traffic pumping was once confined to a handful of carriers, the number and magnitude of such schemes have mushroomed over the past two years. Lawsuits, investigations, and case-by-case tariff suspensions have been inadequate to remedy the problem. The providers that benefit from these traffic-pumping schemes have proven quite adaptive; as the Commission puts an end to one scheme, others pop up in different places or between different entities. It is particularly difficult to combat CLEC schemes, which account for more than 75% of the traffic-

<sup>17</sup> See, e.g., Petition of Feature Group IP for Forbearance from Section 251(g) of the Communications Act and Sections 51.701(b)(1) and 69.5(b) of the Commission's Rules, WC Docket No. 07-256 (filed Oct. 23, 2007); Petition of the Embarq Local Operating Companies for Forbearance from Enforcement of Section 69.5(a) of the Commission's Rules, Section 251(b) of the Communications Act and Commission Orders on the ESP Exemption, WC Docket No. 08-8 (filed Jan. 11, 2008).

<sup>18</sup> Comments of AT&T Inc., WC Docket No. 07-135 (filed Dec. 17, 2007) (AT&T Traffic Pumping Comments).

Chm. Martin  
 July 17, 2008  
 Page 10

pumping minutes billed to AT&T, because the access charges of CLECs are not as closely regulated as those of ILECs, and parties who engage in traffic-pumping schemes can easily start new CLECs to replace those whose activities have been halted. And because CLEC rates are set out in tariffs filed on a streamlined basis, CLECs engaged in traffic pumping argue that, even after their conduct and rates have been found unlawful, they should be shielded from paying refunds by the "deemed lawful" status of their tariffs under section 204(a)(3).<sup>19</sup> If left unchecked, these schemes will inevitably result in higher long-distance rates for consumers throughout the country.<sup>20</sup>

As AT&T explained late last year, the Commission can address this problem only through preemptive measures, including modest rule changes designed to close the loopholes that allow traffic-pumping schemes to flourish.<sup>21</sup>

**D. Inconsistent application of compensation regimes for the same type of traffic depending upon its direction (i.e., asymmetrical compensation).**

Many CLECs that serve VoIP providers and deliver interexchange IP-to-PSTN calls to a LEC for termination on the PSTN route such traffic to avoid access charges and to instead pay reciprocal compensation.<sup>22</sup> But when that same interexchange call flows in the opposite direction (PSTN-to-IP), the same CLEC serving the same VoIP provider may assess access charges on the IXC that delivers the call to the CLEC. Thus, the CLEC pays reciprocal compensation on IP-to-PSTN traffic, but imposes access charges on PSTN-to-IP traffic. This arbitrage scheme imperils the universal availability of affordable telephone service and broadband deployment, as ILECs continue to lose more and more of the intercarrier compensation revenue on which they depend to maintain their networks. If the Commission adopts comprehensive reform, this issue is moot. However, considering the harm and absurdity of this scheme, there is simply no reason to delay a Commission declaration that asymmetrical compensation for IP-to-PSTN and PSTN-to-IP traffic described herein is unjust and unreasonable. Thus, while AT&T discusses this issue at length in the *AT&T Petition* (described above in Section III.B.), the Commission should address this issue expeditiously, regardless of how and when it rules on the other issues raised in that petition. The Commission can accomplish this without having to address the more general treatment of VoIP traffic discussed in the *AT&T Petition*.

---

<sup>19</sup> 47 U.S.C. § 204(a)(3).

<sup>20</sup> See 47 U.S.C. § 254(g).

<sup>21</sup> See AT&T Traffic Pumping Comments for greater detail on the proposed rule changes.

<sup>22</sup> Typically, an IP-to-PSTN call is transported in IP format over the interexchange portion of the call and then converted to TDM format in the terminating LATA and delivered to the terminating LEC over local interconnection trunk groups as if it were a local call.

**E. IP-in-the-middle.**

Despite the Commission's findings in its *IP-in-the-Middle Order*,<sup>23</sup> AT&T and other ILECs continue to be the victims of access arbitrage due to some IXC's practice of converting long distance PSTN-to-PSTN calls to IP at some point in the call chain and then, using third party carriers, reconverting those long distance calls for delivery to the LEC disguised as *local* calls, which are not subject to access charges. These access avoiding IXCs have apparently justified their unlawful scheme by arranging to have their long distance traffic delivered to LECs by third parties. These IXCs then disclaim any obligation to pay terminating access charges because another carrier is delivering this traffic to the LECs. While their assertions have no merit under Commission precedent, AT&T has had to resort to litigation against these IXCs. In February 2006, a federal district court in Missouri stayed AT&T's lawsuit against Global Crossing and others and referred the matter to the Commission under the primary jurisdiction doctrine. Later that month, AT&T brought this referral to the Commission's attention, where it has now sat for nearly three years.<sup>24</sup> Based on AT&T's latest information, several IXCs continue to employ this scheme, which has cost AT&T alone tens of millions of dollars. Further Commission delay in ending this insidious and unlawful practice only prolongs pending litigation and encourages additional carriers to flaunt the Commission's rules.

**F. Interconnection point manipulation.**

The Commission should declare as an unjust and unreasonable practice under section 201(b) the increasingly common small LEC scheme of inflating access charges by designating an interconnection point with a centralized equal access provider that is scores or hundreds of miles away from the LEC's actual physical interconnection with that centralized provider. In its traffic pumping comments, AT&T has detailed a number of variations of this scheme, each as unlawful as the next.<sup>25</sup> For example, some small LECs select centralized access providers located in a *different state* in order to maximize their access charge revenues despite the existence of a centralized access provider that is located much closer to where the LEC has its switches. In addition, other LECs designate an interconnection point on the centralized provider's transport ring as their "official" interconnection point that is the furthest from their actual physical interconnection point in order to charge IXCs hundreds of miles of unnecessary transport and, of course, inflated terminating access charges. The cottage industry around these various schemes is only growing and, thus, the Commission should immediately declare these practices to be unjust and unreasonable under section 201(b).

<sup>23</sup> *Petition for Declaratory Ruling that AT&T's Phone-to-Phone IP Telephony Services are Exempt from Access Charges*, Order, 19 FCC Rcd 7497 (2004) ("*IP-in-the-Middle Order*").

<sup>24</sup> See Letter from Jack Zinman, AT&T Inc., to Marlene Dortch, Federal Communications Commission, WC Docket No. 05-276 (filed May 21, 2008).

<sup>25</sup> See, e.g., AT&T Traffic Pumping Comments at 34-38.

#### **G. Phantom traffic.**

Today's intercarrier compensation regime depends heavily on the appropriate characterization of traffic as local, interstate access, or intrastate access. Comprehensive reform should help mitigate the problem of "phantom traffic" – traffic whose origin or appropriate regulatory classification cannot be determined – by reducing the economic significance of traditional regulatory distinctions among types of terminating traffic. But until the Commission unifies or eliminates termination rates, phantom traffic will remain an increasingly urgent problem for the entire telecommunications industry.<sup>26</sup> In particular, so long as each LEC is expected to recover a substantial portion of its network costs from termination charges it assesses against the thousands of carriers that originate calls that are terminated on the LEC's network, each LEC will need to know whom it should bill and in what amount.

Phantom traffic creates profound competitive distortions in the marketplace. Unidentified originators of traffic or carriers that disguise the proper regulatory classification of the traffic they originate can avoid paying their fair share of intercarrier compensation. This, in turn, disadvantages other carriers that play by the rules. Phantom traffic also causes inequities in universal service contributions, which are based on the proper characterization of traffic. The failure to create or exchange call-detail information is particularly problematic when traffic is exchanged between two carriers that do not have an interconnection agreement with each other. When carriers exchange traffic only via third-party transit providers, the absence of either a governing Commission rule or a negotiated agreement concerning phantom traffic leads to pitched battles about which carrier has the obligation to identify or track traffic. These disputes consume considerable resources without producing any tangible benefit. If the Commission does not take action, the industry will continue to suffer the competition-distorting and inefficiency-producing effects of phantom traffic, while at the same time facing increasingly severe litigation expenses.

The Commission cannot simply put this problem on hold while it postpones consideration of comprehensive intercarrier compensation reform. AT&T thus supports the proposal submitted earlier this year by the United States Telecom Association.<sup>27</sup> Adopting USTelecom's proposed rules would eliminate phantom traffic in most circumstances, to the benefit of carriers and consumers alike. The Commission should thus promptly grant USTelecom's proposal.

#### **IV. Conclusion.**

In accordance with the principles discussed above, the Commission should promptly implement comprehensive reform of the intercarrier compensation system. In the event the Commission cannot meet that challenge, it should adopt the discrete solutions proposed above to

<sup>26</sup> See, e.g., Letter from Glenn Reynolds, United States Telecom Association, to Marlene Dortch, Federal Communications Commission, CC Docket No. 01-92 (filed May 8, 2008) (USTelecom May *Ex Parte* Letter); Letter from Glenn Reynolds, United States Telecom Association, to Marlene Dortch, Federal Communications Commission, CC Docket No. 01-92 (filed February 12, 2008).

<sup>27</sup> See, e.g., USTelecom May *Ex Parte* Letter at 2-3.

Chm. Martin  
July 17, 2008  
Page 13

the issues of ISP-bound traffic, VoIP traffic, traffic pumping, asymmetrical traffic, IP-in-the-middle traffic, and phantom traffic.

Sincerely,

Robert W. Quinn, Jr.

cc: Commissioner Michael Copps  
Commissioner Jonathan Adelstein  
Commissioner Deborah Tate  
Commissioner Robert McDowell  
Daniel Gonzalez  
Amy Bender  
Scott Deutchmann  
Scott Bergmann  
Greg Orlando  
John Hunter



Mr. BOUCHER. Thank you very much, Mr. Lubin.  
Mr. Carlson.

**STATEMENT OF LEROY T. CARLSON, JR.**

Mr. CARLSON. Chairman Boucher, Ranking Member Stearns and members of the——

Mr. BOUCHER. Mr. Carlson, please pull the microphone over, get it very close, turn it on. Thank you.

Mr. CARLSON. There we go. Sorry about that.

Mr. BOUCHER. A little technology lecture here. Thank you.

Mr. CARLSON. I am not an engineer. I am sorry.

Chairman Boucher, Ranking Member Stearns and members of the subcommittee, good morning. As you continue your review of the universal service program, I have observed from my decades of experience, there are several core principles that should guide you when you reform the program.

First, you must recognize——

Mr. BOUCHER. Mr. Carlson, I hate to raise the issue, but I think your microphone is off.

Mr. CARLSON. No, it did go off there.

Mr. BOUCHER. There we go.

Mr. CARLSON. First we must recognize that the money involved is not the government's as one of you said nor the telecommunications provider's; it is the consumer's money. Second, collectively, government and the participating carriers must be superb stewards of these precious funds. Third, while progress has been made, there are still many areas of the country that are expensive to reach and serve with quality service and without assistance will not be successfully served and thus the program continues to be needed. And finally, that the core principles of competitive telecommunications for every American remains an important and worthy goal.

Based upon these principles, I believe there are three questions for the committee to address. First, what is the proper role and scope of the universal service program? One of you mentioned that. Second, what investments should be made in the future? And finally, how do you structure the program effectively and efficiently so as to maximize the benefits to consumers, as something you pointed out.

As to the first question, I agree with the current law but the proper role of this program must be to ensure that high-cost areas have modern, high-quality telecommunications services that are reasonably comparable to those available in our urban and suburban centers and at reasonably comparable rates. Because if universal service were limited to a phone that was tethered to the kitchen wall, rural Americans would be denied access to the mobility tools that they need to compete with urban citizens both here in the United States and abroad, and we commend your bill that you introduced in the prior session in that regard.

With respect to the second question, there are two observations that I would offer. First, broadband services and mobile wireless services are two must-have functionalities that consumers expect and demand for personal and business use. Therefore, the program should be expanded to make broadband eligible for USF support. Second, however, significant additional investment is still required

to bring high-quality mobile services to all Americans. Remaining committed to that investment in mobility will enable companies to bring essential economic development and public safety benefits to rural areas and through the network effect to all Americans. As a carrier that serves vast rural areas, I know that many Americans do not have sufficient access to high-quality mobile wireless services. My company's use of USF support has enabled us to extend service to literally hundreds of small communities that previously had no service or poor service, and we have made some huge coverage gains in places where we have been eligible for those funds such as Oregon, Washington and Maine. There is also much work still to be done extending and improving service in States represented on this committee such as Virginia, Illinois, North Carolina, Tennessee and Missouri, States where we have just recently been designated as an eligible telecommunications carrier.

For those of you who represent rural districts or anyone who visits rural America, you know how your Smart Phone can stop working or you have noticed how dropped calls and dead zones can increase when you leave heavily traveled roads. I believe a reform program can effectively and efficiently address these problems, and if tailored correctly can be complementing the program that has just recently been authorized, the American Recovery and Reinvestment Act. To be clear, we now serve many rural areas that do not generate sufficient revenues to meet ongoing operations expenses and to maintain a high quality of service. There is no escaping the reality that the USF program is critically important to the viability of providing basic mobile services for millions of Americans.

Some additional points that we would like to see we make sure that goes into the legislation from our standpoint, the legislation should not favor any class of carrier or technology because by not doing so, we will foster innovation and competition. We believe we should look at a cost model rather than carriers' own costs because a cost model would save significant cost and expense. And we believe that the legislation should reject any amendments that would foster a single market winner, for example, through reverse auctions, because a single market winner would relegate rural America to the days of a monopoly carrier requiring enormous and unnecessary regulatory oversight to protect consumers.

Thank you.

[The prepared statement of Mr. Carlson follows:]

**Testimony of LeRoy T. Carlson, Jr.**  
**Chairman of the Board, United States Cellular Corporation**  
**Before the**  
**House Subcommittee on Communications,**  
**Technology and the Internet**  
**March 12, 2009**

Chairman Boucher, Ranking Member Stearns, members of the Committee, my name is LeRoy T. Carlson, Jr., and I am Chairman of the Board of United States Cellular Corporation. Thank you for the opportunity to present this testimony in connection with your hearing on the future of universal service and to offer my thoughts on the Boucher-Terry legislation introduced in the last session of Congress.

**Introduction**

U.S. Cellular provides wireless service in nearly 200 markets located in regional clusters across the country, including many of the states represented on this Committee such as Virginia, Nebraska, Missouri, Illinois, Oregon, California, North Carolina, Tennessee, Washington. The overwhelming majority of the geography we serve is rural in character. You should also know that our opinions and perspectives on the Universal Service Fund are based on our experience as an eligible telecommunications carrier in many of these states.

Let me start by saying that we support reform of the universal service program in a comprehensive, constructive manner that promotes both the universal service and competition mandates of the

Telecommunications Act of 1996, while holding the industry accountable for the funds it receives. The Boucher-Terry bill goes a long way toward accomplishing these objectives.

As you continue your review of the universal service program, I have observed from my decades of experience in the business that there are several core principles that should guide review of this important program. First, we must recognize that the money involved is not the government's nor the telecommunications providers'; it belongs to consumers. Second, collectively, government and the affected carriers must be superb stewards of those precious funds. Third, while progress has been made, there are still areas that are expensive to reach and serve with quality service without assistance and, thus, the program continues to be needed. And finally, that the core principle of competitive telecommunications for every American remains an important and worthy goal.

With regard to broadband, Congress declared in 1996 that universal service is an evolving level of service.<sup>1</sup> Broadband falls squarely within the natural evolution of services that Americans depend on to thrive in the modern world. The Boucher-Terry bill's recognition that universal service funds must be used to modernize telecommunications networks in rural areas and that such modernization should include providing broadband is especially encouraging – incorporating broadband is long overdue.

My testimony is divided into two parts. In Part I, I discuss the key issues we know the Committee will need to address as it considers universal service reform. In Part II, I provide additional information that I hope the Committee will find useful as it considers appropriate universal service reform.

---

<sup>1</sup> 47 U.S.C. Section 254.

**Part I: Key Reform Questions**

In evaluating reforms to the universal service programs, there are three questions for this Committee to address. First, what is the proper role of a universal service program? Second, what investments should be made? And finally, how should the program be structured so as to maximize effectiveness, efficiency and consumer benefits?

**a. The Proper Role of a Universal Service Program.**

As to the first question, we agree with the current law, that the proper role of this program must be to ensure that high-cost areas have modern, high-quality telecommunications infrastructure that is reasonably comparable to that which is present in our urban and suburban centers, and at reasonably comparable prices.<sup>2</sup> For if universal service were limited, for example, to a phone tethered to a kitchen wall, rural Americans would be denied access to the tools they need to compete with urban citizens here in the United States, and with people working abroad. We commend your bill in this regard.

Countless jobs that are today outsourced to other countries that have broadband access could be done tomorrow by Americans living in rural areas, if high-quality broadband networks are made available. Companies considering locating in rural areas, or considering moving away, want to know whether their workers will have access to high-quality mobile wireless networks for improved efficiency. For example, we know of a business seeking to locate in rural Maine. When an executive drove out of the Portland metro area and realized that his cell phone would not get service in the target community, he told his hosts that the town was out of the running.

---

<sup>2</sup> 47 U.S.C. Section 254(b)(3).

With respect to broadband, we note that one study commissioned by Connected Nation, Inc. estimated that the total economic gains to be made from improving broadband in the United States would be \$134 billion per year in direct economic impact.<sup>3</sup> Connected Nation asserts that just a seven percentage point increase in broadband adoption could result in financial gains to the nation in the form of:

- \$92 billion through 2.4 million jobs created or saved annually;
- \$662 million saved per year in reduced healthcare costs;
- \$6.4 billion per year in mileage saving from unnecessary driving;
- \$18 million in carbon credits associated with 3.2 billion fewer lbs of CO2 emissions per year in the United States; and
- \$35.2 billion in value from 3.8 billion more hours saved per year from accessing broadband at home.

Without knowing whether these estimates are fully achievable, we submit that if Connected Nation's estimates are only close to being right, these numbers are so large as to compel policymakers to find ways to use every available program, including universal service, to increase broadband availability and affordability for our citizens.

We are seeing countries that the United States competes with deciding that broadband is a basic necessity for their citizens. We must likewise have a national policy that ensures rural communities obtain broadband and that they are not abjectly disadvantaged in the competition to attract and retain business. Universal service was founded on the notion that all citizens benefit when all have access to high-quality service. Fifty years ago, that service was limited to wireline voice – today broadband and mobile wireless services are equally vital and should be embraced in the same manner.

---

<sup>3</sup> The Economic Impact of Stimulating Broadband Nationally, A Report from Connected Nation, Inc. (Feb. 21, 2008). See, [http://connectednation.com/research/economic\\_impact\\_study/index.php](http://connectednation.com/research/economic_impact_study/index.php).

**b. What Investments Should be Made?**

Mr. Chairman, I believe there are two things this committee should understand when considering how to invest program funds and whether they are needed: First, broadband and mobile wireless services are two “must have” functionalities consumers expect and demand for home and business. Therefore, the program must be expanded to make broadband eligible for USF support. Second, significant additional investment must be made to bring high-quality mobile services to all Americans. Doing so will bring economic development and public safety benefits to these areas and, through the network effect, to all Americans.

As a carrier serving vast rural areas, we know that many Americans do not have sufficient access to high-quality mobile wireless services. We have used universal service funds to help literally hundreds of communities receive wireless service for the first time, or receive dramatically improved wireless service. We have made some huge coverage gains in places where we have been, and are eligible for funds, such as Oregon, Washington and Maine. There is much work still to be done, extending and improving service, including in states like Virginia, Illinois, North Carolina, Tennessee, Missouri and West Virginia – states where we have just recently been designated as an eligible telecommunications carrier.

Recently, we rolled out 3G broadband service in a significant portion of our CDMA network in the more urban and suburban areas, offering consumers and businesses the ability to access the Internet at speeds ten times faster than traditional dial up service. If universal service support were available for broadband investments today, we would accelerate our investment in rural mobile broadband to a degree that is not currently feasible.

For those of you who represent rural districts, or anyone who visits rural America, you know full well how your smart phone stops working and how dropped calls and dead zones increase when you leave heavily traveled roads. I believe a reformed program can effectively and efficiently address those problems and, if tailored correctly, can even be complimented by leveraging the broadband funds authorized by the American Recovery and Reinvestment Act. To be clear, we now serve many rural areas that do not generate sufficient revenues to meet ongoing operations expenses - or maintain high quality service – indeed there are cell sites we might be forced to decommission without ongoing long term support. There is no escaping the reality that the USF program is critically important to the viability of mobile service for millions of Americans, including access to broadband. Accordingly, if the Committee takes away from my testimony only one thing, it should be this:

***A central goal of this program must be to provide rural citizens with access to high quality mobile voice and broadband services, everywhere that people live, work and travel.***

Let me be clear, this program is about citizens having access to mobile service quality that is reasonably comparable to that which we take for granted in urban areas. Providing rural areas with high quality service in some areas, while other areas have spotty service with limited functionality, is not enough. In practical terms, we're talking about the difference between a wireless phone that only works sometimes and stays in your glove box and carrying one that always works well in your pocket or purse. It is the difference between a phone working when you drive out to the highway and having it work at home ***and*** on the highway. It is the difference between having basic voice functionality and having high-speed mobile data services that enable farms and other businesses to compete. Lack of competitive opportunities



in rural areas can be a reason talented young people, who make full use of mobile applications, move to urban centers.

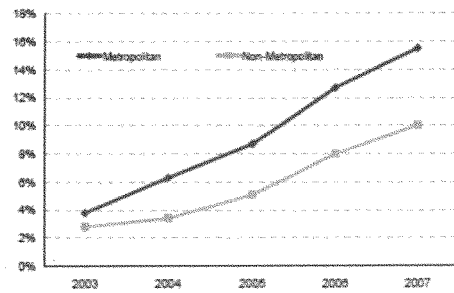
I have attached to this testimony as Exhibit A an illustrative list of communities that have received new or improved service as a result of our use of federal universal service support. We are using support to respond to requests for service from rural communities and fill in dead zones in ways that would not otherwise be possible. Our initial investments in the basic building blocks of voice communications, including towers, transmitters, backhaul links, switching capacity, and battery and generator backups, all set the stage and make possible our investments in the next generation of advanced services, including mobile broadband.

A recent Morgan Stanley report illustrates the need for universal service funding to bring rural wireless networks up to their urban counterparts. Morgan Stanley sees wireless substitution reaching between 33% and 44% in just three to four years.<sup>4</sup> Most important for the Committee's purposes, the chart below demonstrates how substitution in rural areas lags behind urban areas, a problem identified in the report to be primarily the result of "dead zones in rural areas," that is, a lack of high-quality service that could permit cord-cutting. This situation is one reason why the high-cost fund is so important to mobile services. Over twenty years after the first commercial mobile wireless services were licensed in rural areas, there remain significant capital and operating expense challenges to building and maintaining cell sites in rural high-cost areas, leading to an inevitable conclusion that universal service support is the necessary bridge from limited service to comprehensive and high-quality service.

---

<sup>4</sup> Telecom Services, Cutting the Cord: Voice First, Broadband Close Behind. Morgan Stanley Research North America, October 1, 2008.

Exhibit 17  
**Rural Wireless Only HH Growing; Still Lags Urban**



Source: NHIS, 2003-2007; American Community Survey 2003-2006; US Census Bureau; Morgan Stanley Research.

The recently enacted American Recovery and Reinvestment Act ("ARRA") provides \$7 billion for broadband infrastructure projects, many of which we believe should and will be located in rural America. In our experience, there are some areas that will not generate sufficient customer revenues to cover all capital and operating costs, or even the 20% matching capital amount required by the ARRA. The universal service mechanism is a perfect complement to the ARRA, to ensure that facilities constructed with stimulus funds remain fully operational, maintained at a high standard, and modernized.

Last year, working with Connecting Rural America, we commissioned a poll in a number of rural states and learned that most rural citizens value a mobile phone as much as a wired broadband connection. I have attached an example of this polling data at Exhibit B. Overall, the overwhelming majority of people polled believed that federal universal service funding should be used to fix dead spots in rural areas for health and safety reasons. There is no more valuable tool for an individual to have in an emergency than a mobile phone, especially in a rural area. First responders increasingly depend on mobile wireless phones, as amply illustrated by letters written by a Missouri firefighter and a Wisconsin law enforcement officer, attached as Exhibit C.

Moreover, wireless technology is now capable of delivering broadband speed that is faster than many initial wireline DSL service offerings. In the near future, peak speed levels of as much as 60 megabits per second may be possible, a tremendous leap forward for personal and business users. Your efforts must ensure that rural high-cost areas receive access to evolving high quality wireless broadband services.

To be clear: *Broadband and mobility represent the two “must have” functionalities for consumers and businesses.* Consumers contribute significantly to this fund and therefore the program must drive investment in these two functionalities, otherwise rural consumers and citizens will be shortchanged.

**c. How to Distribute Support Efficiently So As to Maximize Consumer Benefits.**

There is no disagreement that funds contributed by citizens must be invested efficiently and that carrier recipients must be accountable. Exactly how the program should be structured is a complicated, detailed and technical project that should be undertaken by the FCC, the expert agency assigned to this task. That said, this Committee can provide significant guidance to ensure that the FCC develops effective, efficient and accountable universal service mechanisms. We offer here a few high-level comments on how to ensure effective and efficient distribution of funds.

**1. Ensure that All Program Participants are Accountable.** We support the basic principle that all participants must be accountable for funds distributed through the program. Carriers should be prepared to demonstrate how support is being invested to benefit rural consumers. We think that compliance would improve if the FCC were directed to develop one set of accountability standards to be enforced by the states. This is especially true for carriers operating in multiple states. We note that several states’ public utility commissions, including Oregon and Maine, present good examples of regulatory structures that provide accountability and transparency with respect to how funds are being invested.

**2. Retain Competitive and Technological Neutrality.** The FCC has adopted a “core principle” that all universal service rules, and their effects, must be competitively and technologically neutral. Competitive Neutrality opens the door to innovation and competition. Moreover, the American Recovery and Reinvestment Act of 2009, requires NTIA and RUS to distribute funds on a technologically neutral basis. We think there should be no further debate that agencies administering programs such as universal service must not discriminate among technologies or classes of carriers when making rules for distributing funds. Accordingly, we strongly support the bill’s inclusion of anti-discrimination provisions.

**3. Examine Technological Advances in Modeling.** We point to some of the work the FCC did between 1996 and 2001 to ensure that universal service mechanisms function in increasingly competitive markets. That body of work has not been updated since 2001 and it is fair to say that some aspects of it have not been examined over the past eight years. While we do not strongly oppose the use of actual costs to determine support levels, we believe that the FCC’s use of a cost model to determine support is worth re-examining. Let me explain why.

I am advised that the vast expansion of computing power as well as new mapping database programs enable models to be constructed for far less cost and with far greater accuracy than was possible ten years ago. We know of private companies that are believed capable of building models to determine effective and efficient amounts of support needed to provide consumers with the supported services. The advantage of a model is that once an effective and efficient level of support is established, carriers would not receive additional support simply by incurring higher costs. Such a model process would be an improvement on the ill-conceived structure that the FCC at one point proposed last year. That proposal would have required wireless carriers to increase their costs above the wireline benchmark before they

could receive any support. We don't believe any class of carrier should be encouraged to increase inefficiency. Accordingly, we think that Congress should allow and encourage the FCC to examine whether models can improve effectiveness and efficiency in how support is distributed, so that the value of program funds is maximized.

**4. Target Support to the High-Cost Areas.** We have been urging the FCC for years to target support more accurately to high-cost areas – those areas that that need it most. It is sometimes difficult for urban-based policymakers here in Washington to understand how important a single new cell site can be to a small community. We are always humbled by the responses we get from small rural communities which, in some cases, literally petition us to bring them service. For example, Fred Nelson, a Village of LaFarge, Wisconsin board member wrote, “We are grateful for the construction of a new cell tower in our community. Without reliable cellular service, many companies in the area would be out of business. And its comforting knowing our residents can contact help in the event of an emergency without the risk of a dropped call or dead zone.” Without this program, most of these small communities would not support new quality infrastructure investment.

In the ARRA, Congress commissioned a broadband mapping project, which will assist in properly targeting broadband support, help properly limit fund size, and ensure that carriers invest in high-cost areas. The FCC has had rules in place to target voice support more accurately since 2001, but it has yet to fully embrace the need to implement. The Committee may wish to direct the FCC to ensure that support only goes to high-cost areas.

**5. Portability of Support Benefits Consumers and Controls Fund Growth.** We also support the idea that support should be “portable,” that is, support goes to the wireless carrier the customer chooses. True portability operates as a cap on support within an area and requires market participants to compete for customers and support. Moreover, portability is the key to allowing new technologies to enter. If a new carrier develops better services, it may build a business plan, construct facilities, win customers, and also win the support that comes with them.

One area where we have difficulty with the FCC’s current mechanism is that support is currently portable among carriers providing significantly different services - fixed and mobile voice. One possible solution is to redefine the supported services to be fixed broadband and voice on the one hand, and mobile broadband and voice on the other hand. Within each supported service, funds would be portable to the wired or wireless carrier that gets the customer.

**6. Avoid Single Winner Solutions.** We opposed an ill-conceived reverse auction proposal made by the FCC last year and we urge the Committee to reject any such proposal that would result in picking a single carrier winner. Whether it be an auction or other government-directed single winner approach, the nation’s consumers and citizens will ultimately lose, for at least four reasons:

- Selecting one auction winner distorts the marketplace by erecting a barrier to entry by newcomers. Once an auction closes, newcomers that could better serve consumers will face potentially insuperable barriers to entry.
- Designating a single dominant carrier in rural areas would recreate precisely the problem that the 1996 Act intended to resolve – regulatory structures that prevent or discourage competitors from investing in facilities-based competition.

- In an auction, the largest carriers will have an incentive to bid near zero to drive out competitors. Such winners will do the absolute minimum to remain qualified, to the detriment of consumers.
- A single winner will mean that monopoly-era regulatory structures will be needed to protect consumers from dominant carrier pricing and business practices. The healthy ability of competition to drive improved services and lower prices would be muted and even eliminated.

#### **7. Provide the FCC With Maximum Flexibility to Reform the Contribution**

**Mechanism.** Last year's proposed bill provided the FCC with broad flexibility to use a revenue or telephone numbers-based contribution methodology. Like many of the issues set forth above, determining how best to adjust contributions and ensure fairness are the kinds of detailed technical issues best resolved by the expert agency. We agree with the Committee's decision to give the FCC clear principles and broad flexibility to enact an optimum contribution methodology.

In sum, the success of this Committee's work will depend largely on guiding a forward-looking and thoughtful FCC to fully understand and implement these much-needed reforms. It is fair to say that the Commission has been unable to enact any substantive reform of the universal service mechanism since 2001. Some of the ill-fated FCC proposals of last year, which we opposed, would have harmed rural citizens and greatly reduced investment in modern infrastructure, precisely at a time when the nation should be accelerating such investments. We support this Committee's willingness to address these difficult questions and provide the FCC with a clear blueprint for universal service reform.



**Part II: Secondary Considerations.**

We offer the following additional information that the Committee may wish to consider in its deliberations.

**a. The FCC Still Does Not Have Accurate Data on Wireless Service Availability.**

Some have argued to the FCC that support to wireless carriers is not delivering the intended benefits. We disagree. In every one of the rural states we serve, we continue to actively construct wireless networks to improve service to consumers. The universal service mechanism allows us to make investments that we would not otherwise make. We urge the Committee to ensure that the FCC has sufficient resources and appropriate direction needed to develop independent data that is fact-based and reliable.

For example, today the FCC does not have accurate data on mobile wireless service availability, because measuring availability at the county or zip code level provides policymakers with data that is of limited usefulness. When one small part of a zip code has coverage by three wireless carriers, that does not tell policymakers anything about whether the consumers throughout that zip code have high-quality mobile wireless coverage. While the Commission has recently improved the granularity of wireless service availability, we urge the Committee to ensure that data used to make policy is independent, accurate and comprehensive.

**b. The Interim Cap Harms Rural Americans.**

The FCC's interim cap on high-cost support to competitive carriers has been enormously harmful to rural Americans. Court papers filed by one trade association, the Rural Cellular Association, call into

serious question the FCC's basis for a cap, which Interim Chairman Copps and Commissioner Adelstein both voted against. In 2009, the cap will prevent roughly \$250 million in wireless investments being made in rural communities, at a time when the President and Congress have made clear how important rural infrastructure projects are to the nation's progress. As a carrier, we order equipment, build towers, and provide services with every dollar of support we receive, and would significantly accelerate our investment and broaden it to more rural areas if the cap were lifted.

Raising the amount of support provided to carriers still in the process of constructing networks is a benefit to consumers in the areas they plan to serve. Additional funds received as a result of lifting the interim cap would go straight into networks across the country. Moreover, if the policy is reformed to open the program to using support for broadband investments, we would immediately adjust our construction budgets to include broadband wireless builds in rural areas where our cell sites are "3G ready".

I thank you for providing me with the opportunity to present this testimony and I look forward to answering any questions you may have.

**Exhibit A****U.S. Cellular USF Investment Summary - 2008**

In 2008, U.S. Cellular invested \$127 million in USF support to fund, in whole or in part, construction of over 200 towers in rural communities across the country. In addition, USF funds were used to construct backhaul, system backups, switching upgrades, capacity upgrades, and for operating and maintenance expenses associated with its construction of facilities in rural high-cost areas. Examples of small communities that received new or improved service:

*Wisconsin - Wyocena, Pilsen, Genoa City*

*Nebraska - Imperial, Fullerton, Ainsworth*

*Iowa - Bonaparte, Panora West, North English*

*Maine - Milford, Edgecomb, Limerick*

*Kansas - Clyde, Greenleaf, Arlington*

*Missouri - Lucern, Downing, Livonia*

*Oklahoma - Broken Bow, Calvin, Millerton*

*Oregon - Powell Butte, Moro, Jacksonville*

*Illinois - Heyworth, Victoria, Payson*

*West Virginia - Alderson, Liberty, Lumberport*

## Exhibit B



## Connecting Rural America

### OREGONIANS WANT BETTER RURAL CELL PHONE SERVICE FOR PUBLIC SAFETY

#### *Statewide Poll Shows Support for Universal Service Fund...*

- **89%** of Oregon residents feel it is important to have reliable and consistent cellular phone coverage in rural areas for **public health and safety**.
- **74%** support using federal Universal Service Fund (USF) dollars to **fix dead spots** and bring consistently reliable service to rural parts of the state if it costs all telephone customers two dollars (\$2) per year [an amount equal to the average consumer bill reduction if USF support for wireless is cut].
- **77%** support federal policy that funds projects that ensure consumers in rural areas have access to **choices** in communications services, such as cell phones and other wireless communication services that are comparable in quality and price to those available in urban areas.
- The citizens of Oregon feel access to a **wireless phone** on a high-quality, reliable network is **as important** as access to a quality **land line broadband** Internet Connection.
- **51% would choose a cell phone over a traditional land line phone** (42%) if they could only choose one type

of service

#### **...Concern about Proposed FCC Cuts**

- After capping the USF for wireless in March, the Federal Communications Commission (FCC) is now considering proposals to **cut USF funding for wireless by 58% in Oregon**.
- If the FCC cuts USF support for wireless carriers, Oregon will lose roughly **\$13 million** per year in USF funding, and at least **58% of Oregon's future rural cell phone towers would be in jeopardy**.
- Cutting the fund as the FCC proposes would save consumers just **17 cents a month**.
- When presented with balanced arguments for and against the proposed FCC cuts, nearly half (**46%**) of Oregonians **oppose** cuts that would limit support for rural wireless development.

## Exhibit C

## MISSOURIAN

LETTER: Cutting rural wireless networks could hinder emergency response

September 16, 2008

BY Steve Paulsell, chief, Boone County Fire Protection District

For many of us, cell phones have become a necessary component of everyday life, helping us do business, stay in touch with the people who matter most to us and call for help in emergencies.

Across Missouri, firefighters like myself depend on wireless service to respond quickly to emergency situations. We rely on cell phones to assist in search and rescue operations and communicate in areas where our radio system is insecure or unavailable.

That's why a recent proposal by the Federal Communications Commission is so troubling to me — and potentially dangerous for rural Missouri.

In smaller communities, wireless carriers cannot always justify the costs of building new cell towers. However, there is a federal program called the Universal Service Fund that helps build reliable communications networks in rural areas.

Unfortunately, the FCC placed a cap on the wireless portion of the fund earlier this year and now proposes drastic cuts that could nearly halve the support we now receive in Missouri. Statewide, we could lose up to \$7 million in annual support, and dozens of new cell sites would be canceled or delayed every year.

We are fast becoming a wireless nation, but there is much work to be done in Missouri to bring reliable cell phone networks to our rural areas. Cutting the fund for wireless is not a solution. Visit [ConnectRuralAmerica.org](http://ConnectRuralAmerica.org) to learn more and take action.

---

## Letters: Rural America deserves quality wireless communication service

February 7, 2008

I am writing to alert you to a critical public safety issue affecting residents of Wisconsin — the lack of high-quality wireless coverage in rural areas.

As our community deals with severe, unpredictable and oftentimes dangerous winter weather, it is critical that we are able to count on a strong, reliable wireless signal and it is often a primary means of communication during emergency situations.

As a law enforcement official in Wisconsin, I can testify that the lack of high-quality wireless coverage in rural areas is a critical public safety concern — in Wisconsin and in states around the country. First responders, firefighters and police officers all depend on reliable coverage to handle emergency situations ranging from natural disasters and car accidents to reports of domestic violence.

In many cases, reliable wireless service can literally mean the difference between life and death, especially at this time of year when severe weather can cause hazardous road conditions and widespread power outages.

Despite this, the Federal Communications Commission recently signaled its intent to cap the Universal Service Fund "carry-over" — and could do so any day. Wisconsin's rural wireless carriers estimate that a cap would cost the state about \$7 million per year, jeopardizing the construction of dozens of new sites. This would compromise public safety resources and further put us at a disadvantage during winter storms.

To this end, I support Connecting Rural America, an effort aimed to ensure that rural residents across the country have equal access to a strong, reliable wireless network. I urge you to visit [www.connectruralamerica.org](http://www.connectruralamerica.org) to learn more and to take a stand for rural America.

Mr. BOUCHER. Thank you, very much, Mr. Carlson.  
Mr. Gailey.

#### STATEMENT OF MARK GAILEY

Mr. GAILEY. Chairman Boucher, Ranking Member Stearns and members of the subcommittee, thank you for inviting me here today. I am Mark Gailey, president and general manager of Totah Communications located in Ochelata, Oklahoma. Our family-owned company serves over 3,000 telephone subscribers and more than 1,000 DSL subscribers in sparsely populated areas of Oklahoma and Kansas. I come before you as chairman of the board of the Organization for the Promotion and Advancement of Small Telecommunications Companies and as a board member of the Western Telecommunications Alliance. The companies and cooperatives represented by these associations provide numerous services to their communities including voice, broadband Internet access, video and wireless.

The recent enactment of the American Recovery and Reinvestment Act of 2009 has brought more attention and focus than ever on the efforts to provide broadband service to all citizens of our Nation. The broadband infrastructure funding included in that law should further the goals set forth by Congress and the Administration. However, as significant as the funding levels were for broadband build-out, it will not get the entire job done, nor will these grants and loans provide for the ongoing operations, maintenance and upgrades of broadband networks.

This brings me to the subject of today's hearing, the Federal Universal Service Fund. OPASTCO and WTA believe very strongly that the Universal Service Fund high-cost program should explicitly support broadband. The goal of universal service policy has been to ensure that every American regardless of their location has access to affordable, high-quality public switch network. For rural incumbent local exchange carriers, high-cost universal service support is a cost recovery program designed to promote investment in areas where it would not otherwise be feasible for carriers to provide quality service today or in the future, and the future of communications, as we know, is broadband.

While the availability of broadband service is necessary, just as important is the adoption of broadband service. There are many factors that spur adoption of broadband. Computer availability and training come to mind, but the major factors are price and speed of the service, and USF plays a very important role in making broadband both affordable and attractive for consumers. Health care, education and commerce have joined communications and entertainment as applications that now make high-speed broadband Internet connection a necessity.

USF needs other significant reforms. The USF contribution base must be expanded to include all broadband and voice connections, thus leading to smaller USF line items on consumers' bills and more funding availability. The so-called Identical Support Rule should be eliminated, which would result in cost savings to the USF and prudent use of funds based on real investment levels of competitive carriers, not the investment levels of an incumbent carrier.

OPASTCO and WTA strongly believe that no cap should be imposed on the high-cost program or any portion of it so that sufficient funds are available for ongoing broadband investment and upgrades. Continual investment is critical because broadband connections that are available today are not the networks that will enable rural areas and the rest of the country to compete globally 5 years from now. A high-quality broadband network can enable existing businesses in rural areas to grow as well as to attract new business to the areas, both of which will energize the local economy.

We also request that the USF be permanently exempt from the Antideficiency Act accounting standards. The imposition of the ADA on the USF or even the threat of such action brings about uncertainty regarding future USF payments that thwart investment in communications and network services. OPASTCO and WTA also oppose the implementation of reverse auctions, State grants, vouchers and other mechanisms that will only diminish the usefulness of USF.

Chairman Boucher, I wish to thank you and Congressman Terry for the insight and leadership you have shown on this issue. Introduced in the previous Congress, the Boucher-Terry USF reform legislation was supported by both OPASTCO and WTA. Many of the reforms to USF that we requested in this testimony were contained in that bill. We look forward to working with you once again to move forward with progressive reforms to this very important program.

I would like to move to an important aspect of any USF reform effort: oversight and accountability. OPASTCO and WTA pledge to work with Congress and the Administration to continue the high-cost program's accountability to the public. On the issue of transparency and the operation of the USF, all parties involved must work toward realistic processes and fair solutions to better administer the funds collected from communications customers.

In conclusion, for nearly 75 years our Nation has supported the policy of universal communications services for its citizens. Throughout those years, those meant telecommunications or voice service. Our country, our economy and in fact our entire world has vastly changed and it is well past time to reform the USF.

Thank you.

[The prepared statement of Mr. Gailey follows:]



87

TESTIMONY

OF

MARK GAILEY

TOTAH COMMUNICATIONS

On behalf of

The Organization for the Promotion and  
Advancement of Small Telecommunications  
Companies

and

The Western Telecommunications Alliance

Before the

U.S. House of Representatives

Committee on Energy and Commerce

Subcommittee on Communications, Technology and  
the Internet

March 12, 2009

Chairman Boucher, Ranking Member Stearns, and members of the subcommittee, thank you for inviting me to appear before you today. I am Mark Gailey, president and general manager of Totah Communications located in Ochelata, Oklahoma. Founded in 1954 as Totah Telephone, our family owned company now serves over 3000 telephone subscribers and more than 1000 DSL subscribers in sparsely populated areas of Oklahoma and Kansas.

I come before you as chairman of the board of the Organization for the Promotion and Advancement of Small Telecommunications Companies (OPASTCO) and as a board member of the Western Telecommunications Alliance (WTA). OPASTCO represents more than 530 independently owned local exchange carriers in 47 states. WTA has a membership of approximately 250 rural telecommunications carriers in 24 states west of the Mississippi River. The companies and cooperatives represented by these associations provide numerous services to their communities including voice, broadband Internet access, video and wireless.

The recent enactment of the American Recovery and Reinvestment Act of 2009 (ARRA) has brought more attention and focus than ever to the effort to provide broadband service to all citizens of our nation. The broadband infrastructure funding included in that law should further the goals set forth by Congress and the Administration. However, as significant as the funding levels are for broadband build-out to be administered by the Department of Agriculture's Rural Utilities Service and the Department of Commerce's National Telecommunications and Information Administration, we realize that it will not get the entire job done. Nor will these grants

and loans provide for the ongoing operation, maintenance and upgrade of broadband networks.

This brings me to the subject of today's hearing - the federal Universal Service Fund (USF). OPASTCO and WTA believe very strongly that the Universal Service Fund High-Cost program should explicitly support broadband.

Historically, the goal of universal service policy has been to ensure that every American, regardless of location, has affordable, high-quality access to the public switched network and thereby benefits from a variety of telecommunications and information services. The provision of a robust telecommunications infrastructure in rural America would never have been possible were it not for the nation's long-established policy of universal service and the federal USF. For rural incumbent local exchange carriers, high-cost universal support is a cost recovery program designed to promote infrastructure investment in areas where it would not otherwise be feasible for carriers to provide quality service at rates that are affordable and reasonably comparable to urban areas of the country. Without high-cost support, this investment would not have occurred in the past and will not occur in the future. And, as we all know, the future of communications is broadband.

While the availability of broadband service is necessary, just as important is the adoption of broadband service, also known as the "take rate." There are many factors that spur adoption of broadband; computer availability and training come to mind. But the major factors are the price and speed of the service and the USF plays a very important role in making broadband both affordable and attractive for consumers.

Not that long ago broadband service to a small business or home was seen as a luxury. Today, that is not the case. Health care, education and commerce have joined communications and entertainment as applications that now make a high-speed broadband Internet connection a necessity.

Along with the inclusion of broadband as a supported service, the USF needs other significant reforms. The USF's contribution base must be expanded to include all broadband and voice connections, thus leading to smaller USF line items on consumer bills and more funding availability. The so called "identical support rule" should be eliminated which would result in cost savings to the USF and prudent use of the funds based on the real investment levels of competitive carriers, not the investment level of the incumbent. Both of these reforms would allow for removal of the existing cap on a major portion of the USF High-Cost program.

OPASTCO and WTA strongly believe that no cap should be imposed on the High-Cost program or any portion of it, so that sufficient funds are available for ongoing broadband investments and upgrades. Continual investment is crucial, because the broadband connections that are available today are not the networks that will enable rural areas and the rest of the country to compete globally five years from now. As the digital content on the Internet continues to grow, the products, services and applications that ride over the broadband network are becoming more and more bandwidth intensive, and are requiring ever-higher data speeds to accommodate them. In order for rural consumers to be able to access everything the Internet has to offer, rural carriers need to invest in more robust and intelligent networks that are capable of handling greater amounts of data. This is an ongoing process. For rural service areas, the benefits of a robust broadband-capable

network are pronounced. For example, a high-quality broadband network can enable existing businesses in a rural area to grow as well as attract new businesses to the area, both of which will energize the local economy. Put another way, the constraints imposed by capping the fund do not allow for consumer services and the job growth that our country desperately needs.

We also request that the USF be permanently exempted from the Anti-Deficiency Act (ADA) accounting standards. The imposition of the ADA on the USF, or even the threat of such an action, brings about uncertainty regarding future USF payments that thwart investment in communications networks and services. This would not only impact communications service providers, it would also have a chilling affect on rural health care, schools and libraries.

OPASTCO and WTA also oppose the implementation of reverse auctions, state grants, vouchers and other mechanisms that will only diminish the usefulness of the USF.

Chairman Boucher, I wish to thank you and Congressman Terry for the insights and leadership you have shown on this issue. Introduced in the previous Congress, the Boucher/Terry USF reform legislation was supported by both OPASTCO and WTA. Many of the reforms to USF that we have requested in this testimony were contained in that bill – broadening the contribution base, the inclusion of broadband as a supported service and the ADA exemption serve as examples. With the growing need to provide all consumers with the most up-to-date communications technologies and services, we cannot afford to wait much longer to address these issues. We look forward to working with you once again to move forward with progressive reforms to this very important program.

Now I would like to move to an important aspect of any USF reform effort: oversight and accountability. OPASTCO and WTA pledge to work with Congress and the Administration to make the High-Cost program accountable to the public. Strong oversight by Congress and the Federal Communications Commission is essential to the ongoing success of the USF. On the issues of transparency and the operation of the USF, all parties involved must work toward realistic processes and fair solutions to better administer the funds collected from communications consumers, and carry-out the social contract envisioned by supporters of this program.

In conclusion, for nearly 75 years our nation has supported the policy of universal communications service for its citizens. Throughout those years this meant telecommunications or voice service. Our country, our economy, in fact, our entire world has vastly changed and it is well past time to reform the USF. Broadband is the economic driver of the world economy. The United States must be a leader in deploying these communications technologies.

Thank you.

Mr. BOUCHER. Thank you very much, Mr. Gailey.  
Mr. Turner.

#### STATEMENT OF DEREK TURNER

Mr. TURNER. Chairman Boucher, Ranking Member Stearns, Mr. Barton and members of the committee, I thank you for the opportunity to testify today on the important issue of high-cost reform. I am the research director for Free Press, a public interest organization dedicated to public education and consumer advocacy on communications policy.

Technology is rapidly changing the way Americans interact, learn and do business, and all for the better, but the rules governing our communications markets are not keeping up with this rapid pace of change and consumers are suffering as a result.

When the current universal service regime was created in 1996, the Internet was an application that rode on top of the telephone infrastructure. Today it is the opposite. Telephony is just one of many applications that ride on top of broadband infrastructure. With this convergence comes the opportunity to ensure universal affordable broadband access while also reducing the future burden on the fund. We strongly support the goals of universal service. Everyone benefits when rural consumers have access to affordable high-quality communications services. But as advocates for the consumers whose monthly bills support the fund, we want to ensure that our system of universal service is both fair and efficient.

Consumers in the 21st century marketplace should not be forced to subsidize a 20th century technology. We believe a bold and transformative shift in USF policy is needed. Done properly, we can bring affordable broadband to all Americans while also substantially reducing the size of the fund in the long term. Here is how. We must begin by asking two basic questions: how much money is each USF supported line receiving each month, and is that support actually needed. Our research shows that 40 percent of the high-cost fund, nearly \$2 billion annually, goes to subsidizing lines that receive less than \$10 per month. This is also true for small rate-of-return carriers. Two-thirds of these lines receive less than \$10 per month in high-cost support. Now, these subsidies may be justified but it begs the question: Is this the best use of that \$2 billion? We also should ask whether rates in these areas are already below the national average, and should we instead be using this money for broadband deployment to bring rural customers more than just a telephone line.

The path to universal broadband and the ending of the over-reliance on subsidies begins with recognizing how convergence has changed the business of telecommunications. Before broadband, carriers were only able to earn perhaps \$20 per customer each month selling local phone service. In today's converged world, a carrier can earn well over \$100 on that same line by offering phone, TV and Internet services. Unfortunately, our current regulatory structure does not account for this potential, ignoring that with this additional revenue many high-cost carriers can operate profitably without ongoing subsidies. Instead, it tries to clumsily separate out regulated from unregulated cost revenues and really results in overpayments and anticompetitive subsidies.

As an alternative to this broken process, we suggest basing ongoing high-cost support on total revenue earning potential and forward-looking infrastructure costs calculated for each carrier on a granular disaggregated basis. This modernized regulatory structure will reduce the need for ongoing support as many carriers will be able to recoup network costs and earn healthy profits from triple-play services. However, for some carriers, the upfront cost for deploying broadband into currently unserved areas is just too high. Here is where we have the opportunity to turn the regulatory structure on its head. We should use the fund to pay these upfront costs and then only provide ongoing support where it is truly needed. We propose a 10-year transition where the new total cost potential revenue support model is phased in and the resulting cost savings are used to fund the build-out of open access broadband infrastructure into unserved areas. We estimate that after this transition, the total size of the High-Cost Fund could be reduced by two-thirds to less than \$1.5 billion per year.

Now, the \$7 billion in broadband stimulus funds presents policymakers with a window of opportunity to transform USF. Here, a substantial portion of the upfront costs for rural networks may be financed by taxpayer dollars. The carriers operating these networks will thus have little capital costs to recover and therefore little need for ongoing support. But unless the FCC moves to modernize the regulatory structure, we may see double dipping. Now, by that I mean carriers might ask ratepayers to reimburse them for the networks already paid for by taxpayers.

Now, getting universal service policy right isn't the only thing we need to do to ensure universal service. For rural carriers, the viability of the self-supporting triple-play business model depends on getting fair rates and terms for transport and special access services and getting fair access to video programming.

In closing, we urge Congress to maintain its commitment to universal service but to do so with policies that are flexible and that benefit all consumers. I thank you for your attention and I look forward to your questions.

[The prepared statement of Mr. Turner follows:]



MASSACHUSETTS  
40 main st, suite 301  
florence, ma 01062  
tel 413.585.1533  
fax 413.585.8904

WASHINGTON  
501 third street nw, suite 875  
washington, dc 20001  
tel 202.265.1490  
fax 202.265.1489



Testimony of

**S. Derek Turner**  
**Research Director**  
**Free Press**

before the

**United States House of Representatives**  
**Committee on Energy and Commerce**  
**Subcommittee on Communications, Technology and the Internet**

Regarding

**Universal Service: Reforming the High-Cost Fund**  
**March 12, 2009**

**Free Press**  
**Massachusetts Office**  
**40 Main St., Suite 301**  
**Florence, MA 01061**  
**(413) 585-1533**

**Free Press**  
**Washington Office**  
**501 3rd St, NW, Suite 875**  
**Washington, DC 20001**  
**(202) 265-1490**

**SUMMARY OF TESTIMONY OF S. DEREK TURNER, RESEARCH DIRECTOR, FREE PRESS**

When the current universal service regime was created in 1996, the Internet was an application that rode on top of the telephone infrastructure. Today, telephony is one of many applications that ride on top of broadband Internet infrastructure. This phenomenon of convergence has radically transformed the underpinnings of all telecommunications regulation. Whereas the carriers of last century were only able to earn \$20 per customer each month selling local telephone service, today's carrier using a single converged network can earn well over \$100 per customer every month by offering telephone, TV and Internet service.

With convergence comes tremendous opportunity: the opportunity to ensure universal affordable broadband access *and* the opportunity to significantly reduce the future burden on the Universal Service Fund. The former is of course a goal of the Fund's staunchest defenders, and the latter is a goal of its most ardent critics.

But critics and defenders of the High-Cost Fund all agree that broadband is *the* essential communications infrastructure of the 21st century. In this 21st century digital world it makes no sense to subsidize 19th century technology. The principle goal of the High-Cost program should no longer be the maintenance of basic telephone service in rural America; the principle goal should be achieving universal deployment of affordable broadband infrastructure. Achieving this goal however, will require the complete upending of the status quo and direct confrontation of difficult and politically challenging choices.

The \$7.2 billion in stimulus funds allocated for broadband presents an opportunity for policymakers to take bold and decisive action on USF reform. For the first time, the entire upfront deployment costs for rural networks will be completely financed by taxpayer dollars. The carriers operating these networks will have little to no capital investment costs to recover, and therefore little to no need for traditional ongoing high-cost fund support. But unless the FCC moves to modernize the regulatory structure, it will soon see carriers asking ratepayers to subsidize these networks -- networks already paid for with taxpayer dollars.

Meaningful and lasting USF reform may only be achievable through Congressional action. However, under existing law the Commission does have the authority to implement sweeping changes. We recommend that the FCC begin the process of transitioning to a support a system that embraces convergence. Specifically:

- The Commission should modernize the current regulatory support structure to reflect the lower cost and increased revenue opportunities brought by broadband infrastructure.
  - The need for ongoing high-cost support should be based on forward-looking infrastructure costs and total revenue earning potential. This modernized regulatory structure will reduce the need for ongoing support, as many current Fund-recipients will be able to recoup network costs from the higher per-customer revenues earned from "triple-play" phone, Internet and TV services.
- The Commission should implement a 10-year transition of the High-Cost Fund to a system that subsidizes the upfront deployment costs of broadband networks. Further ongoing support should only be provided on a limited disaggregated basis to extremely high-cost areas.
  - This transition should begin with a freeze of total High-Cost funding at 2009 levels.
  - This transition can be achieved via a gradual 5-year phasing down of support for those study areas with lines that receive less than \$20 per month per line. Nearly 60 percent of the total High-Cost Fund is used to subsidize lines that require less than \$20 per month in support, accounting for 97 percent of all lines receiving High-Cost Fund support.
  - After the 10-year transition, the total size of the High-Cost Fund could be reduced to less than \$1.5 billion annually.
- If the Commission makes changes to the current USF contributions assessment system, it should not subject residential broadband services to these assessments, even if broadband networks are supported by USF. Assessments on broadband could lead to a net decline in subscribership, undermining the goals of universal service.

# INTRODUCTION: UNIVERSAL SERVICE POLICY IS AT A CROSSROADS

Though the debate surrounding the Federal Universal Service Fund (FUSF) is often contentious and seemingly intractable, we must not lose sight of a salient fact: the Fund is responsible for delivering essential communications services to low-income households, rural areas, schools, libraries, and rural health clinics -- services that would likely not exist or be prohibitively expensive absent support from the Fund. The goal of universal service is a cornerstone of our nation's communications policy dating back to the 1930's. Though the communications landscape has undergone a series of radical changes since then, the importance of achieving universal service has not. The challenge facing policymakers is determining the mechanisms and policies best suited to achieve this goal in the most efficient and equitable manner possible.

There is little doubt that the Fund is in trouble, facing a potential fiscal crisis of falling receipts and expanding expenses for services that are essential but perhaps technologically inferior. But while the Fund's present predicament poses a serious threat, it also presents an opportunity -- an opportunity to modernize the fund and close the digital divide.

In 1996 when the current universal service regime was created, there were not many who fully grasped how the phenomenon of convergence would radically transform the underpinnings of all telecommunications regulatory structures. But some in Congress did see change on the horizon, and had the foresight to establish in the law the principle that as communications technologies evolve, universal service must evolve with it.

At the time, Internet access was an application that used telephony as an infrastructure. Today, telephony is one of many applications that are supported by broadband infrastructure. Yet tens of millions of Americans cannot purchase a broadband connection at any price, and millions more are only offered third-rate broadband service at exorbitant prices. The staggering rural-urban digital divide, and the lack of affordable broadband offerings is the exact outcome that Congress intended the Act to prevent. This disparity has real world economic and social consequences for millions of American businesses and families.

Broadband is the essential communications infrastructure of the 21st century. In this 21st century digital world it makes no sense to support 19th century technology. The principle goal of the USF should be to support the deployment of, and consumer access to, next-generation, future-proof, high-speed Internet infrastructure. But to reach that goal requires the complete upending of the status quo and direct confrontation of difficult and politically challenging choices.

The development and administration of universal service policy in the United States is an interest group-driven, politically charged, path-dependent process. The Fund as currently administered inefficiently supports redundant legacy technologies and enables private companies to become wholly dependent on the continuance of the old model. This mix of disparate interests, entrenched business models, outdated legislative directives, arbitrage-creating artificial policy distinctions, and \$7 billion annually of funds makes it extremely difficult for legislators and regulators to enact even modest incremental changes, much less large sweeping reform.

But it is imperative that policymakers act to change this path-dependent model. The fact that the digital divide persists in the face of a \$4.6 billion annual high-cost fund to support telephony is a glaring testimony of the failures of the current universal service model and the need for modernization. However, when reforming the Fund policymakers must also recognize that these billions of dollars are collected for the most part from urban consumers who only realize indirect benefits from the Fund. It is therefore vital that these consumer's monies are spent in the most efficient manner possible, and that the gains in added rural subscribers not come at the expense of losses in urban subscribership.

In order to maximize the benefits of universal service policies for all Americans, the size of the Fund must be disciplined through careful oversight and accountability, market incentives, and strategic investment in infrastructure. Since the implementation of the Act we've learned that support for redundant infrastructures, which is intended to promote competition, may in some cases actually be a net harm to consumers. Viewed through this lens, the appropriate role for the Fund is to support a single infrastructure, while using open access policy to promote competition. This approach will ultimately benefit consumers in rural areas by

lowering service prices and enticing more customers to subscribe, and in turn will benefit all consumers by lowering the amount of support that is necessary to build and maintain the critical broadband infrastructure.

Congress and the FCC must maintain the remarkable and progressive commitment to universal service that is the foundation of U.S. communications policy. Transitioning the Fund to broadband is an essential step on the path to reforming the system by maximizing the return on public investment and regaining America's position as a global leader in technology and communications.

#### THE SCOPE AND NATURE OF THE UNIVERSAL SERVICE PROBLEM

In 1996 when the current USF was created, there were not many who fully grasped how the phenomenon of convergence would radically transform the underpinnings of all telecommunications regulatory structures. At the time, Internet access was an *application* that used telephony as an *infrastructure*. Today, telephony is one of many applications that are supported by broadband infrastructure. Yet the fundamental need for universal service remains. Millions of American homes cannot purchase a broadband connection at any price, and millions more are only offered third-rate broadband service at exorbitant prices. This is tragic, as broadband is the essential service of the 21st century. The fact that this digital divide persists in the face of a \$4.5 billion annual high-cost fund to support telephony is a glaring testimony of the failures of the current universal service model and the need for modernization.

Convergence is forcing policymakers to undertake a complete overhaul of our basic conceptions of, justifications for, and administering of universal service. Ultimately, we believe that broadband is the communications infrastructure of the 21st century, and that the principle goal of the USF should be to support the deployment of, and consumer access to, next-generation, future-proof high-speed Internet services. But to reach that goal, we must completely upend the status quo, and confront some difficult, political challenging choices. The Fund as currently administered inefficiently supports redundant legacy technologies and enables private companies to become wholly dependent on the continuance of the old system. It is imperative that Congress and the Commission act to change this path-dependent model.

But the upsetting of the status quo must be done in a realistic manner. It is not enough to simply say broadband should be a supported service. A method for reaching universal broadband service must be proposed that does not balloon the size of the Fund, which is already under great strain.

While the problems with the current USF are numerous and daunting, they are not insurmountable. Policymakers must take advantage of the window of opportunity created both by the consensus that USF reform is long overdue, and by the recent appropriation of over \$7 billion in broadband stimulus funds. Congress and the Commission should avoid the approach of balancing the interests of the various industry factions and instead focus on developing a policy framework that is guided by the principle of serving the public interest and has the best chance of achieving the core outcome goal of universal service: maximizing the availability, affordability, and adoption of communications technology in all regions of the nation.

But we must also recognize that these billions of USF dollars are collected for the most part from urban consumers, who only realize indirect benefits from the Fund. It is therefore vital that these consumer's monies are spent in the most efficient manner possible, and that the gains in added rural subscribers not come at the expense of losses in urban subscribership.

In this written testimony, we begin with an analysis of the principles underpinning universal service, and develop criteria for modernization based upon these principles. We then conduct a quantitative analysis of the current distributions of universal service funds, in order to better guide how to transition current funding away from support for plain old telephone service (POTS), towards support for broadband infrastructure.

#### PRINCIPLES THAT SHOULD GUIDE UNIVERSAL SERVICE POLICY

The criteria we use to evaluate USF High-Cost Fund reform alternatives are largely based on the “public interest” provisions contained within the 1934 Communications Act, which in its first sentence declares the Act’s intention to facilitate Universal Service in all communications technology by establishing the Commission “to make available, so far as possible... a rapid, efficient, Nationwide... wire and radio communication service with adequate facilities at reasonable charges”.<sup>1</sup>

This overarching purpose of the Act is made explicit Section 254 of the Act, which specifies principles that the Joint Board and the Commission are to use to guide Universal Service policymaking. Therefore, in our development of criteria for the evaluation of USF reform proposals, these specific principles from Section 254 are given substantial weight.

The principles for USF policymaking in Section 254 of the Act state:<sup>2</sup>

- “Quality services should be available at just, reasonable, and affordable rates.
- “Access to advanced telecommunications and information services should be provided in all regions of the Nation.
- “Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.
- “All providers of telecommunications services should make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service.
- “There should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service.
- “Elementary and secondary schools and classrooms, health care providers, and libraries should have access to advanced telecommunications services as described in subsection (h).”

Section 254(b) also gives the Joint Board and the Commission further authority to establish additional principles that they “determine are necessary and appropriate for the protection of the public interest, convenience, and necessity” and are consistent with the Act.<sup>3</sup> In the 1996 *Recommended Decision*<sup>4</sup>, the Joint Board proposed an additional principle of “competitive neutrality” which the Commission subsequently adopted.<sup>5</sup> This principle was defined as meaning that “universal service support mechanisms and rules neither unfairly advantage nor disadvantage one provider over another, and neither unfairly favor nor disfavor one technology over another.”

Our analysis is guided by these seven principles and two additional principles that we feel are important to the promotion of the public interest. First, the burden placed on consumers for supporting the fund should be minimized to the extent needed to provide the most efficient universal service support possible. Second, consumers in all regions of the nation deserve the benefits of competition, and universal service support for that competition should be administered in the most efficient manner possible.

<sup>1</sup> 47 USC §151

<sup>2</sup> 47 USC §254 (b) (1)-(7)

<sup>3</sup> 47 USC §254 (b) (7)

<sup>4</sup> *In the Matter of Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Recommended Decision, 12 FCC Rcd 87 (released November 8, 1996) (*1996 Recommended Decision*).

<sup>5</sup> *In the Matter of Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, FCC 97-157 (released May 8, 1997) (*1996 Universal Service Order*).

**CRITERIA FOR EVALUATING UNIVERSAL SERVICE FUND REFORM PROPOSALS**

Based on the overarching principle of the promotion of the public interest, the seven statutory universal service principles promulgated under Section 254, and the two additional pro-consumer principles we propose, we establish the following criteria criterion for evaluating USF reform alternatives:

- Universal Service:
  - Maximize the availability, affordability, and adoption of telecommunications services and advanced information services.
- Economic Efficiency:
  - Maximize consumer utility.
  - Maximize benefits and minimize costs.
  - Maximize the capturing of network externalities.
  - Minimize deadweight loss and surplus losses.
- Equity:
  - Allocate costs and benefits in an equitable manner.
  - Minimize contribution burden with a definition of “reasonably comparable rates” that reflects real-world use of telecommunications and advanced information services and accounts for the overall economic differences between high-cost and all other areas of the nation.
- Competitive Neutrality:
  - Minimize any market distortions caused by universal service subsidies.
  - Maximize incentives for market deployment of most advanced and efficient communications technologies.
- Planning for the Future:
  - Minimize the likelihood that supported networks will become obsolete in the foreseeable future.
  - Minimize the need for, and amount of future universal service support.
- Openness and Consumer Protection:
  - Minimize harms of vertical integration and market power by minimizing market concentration and minimizing control of access to content by any service provider.

Alternative USF reform proposals should be measured against these criteria, and those plans that strike the best balance among these factors will be well suited to achieve the goals of Section 254 in an efficient and equitable manner.

### THE FREE PRESS USE REFORM DISCUSSION PROPOSAL

We approach our development of a reform proposal with the assumption that the size of the high cost fund will be fixed at the 2008 level (approximately \$4.6 billion).<sup>6</sup> While we make no judgment on what the appropriate level of funding should be to achieve the goals of universal service, we do recognize the reality that continued fund growth is politically unfeasible. The Commission has acted on the Joint Board's recommendation<sup>7</sup> to cap at the state-level the funds that are distributed to Competitive Eligible Communication Carriers (CETCs).<sup>8</sup> For 2008, CETC support is projected to account for approximately \$1.52 billion of the \$4.62 billion spent on the high cost fund, or one-third of the entire program. Though this cap is only interim (for one year) and only applies to one-third of the total monies in the High Cost Fund, growth in the funds apportioned to incumbents has largely been stable since 2003 according to the Joint Board.<sup>9</sup> Furthermore, the High Cost Loop program is subject to an annual index cap and the Interstate Access Support program has an annual target. Together these two programs account for \$1.52 billion of the total \$3.1 billion in projected 2008 support for incumbent carriers. There is no indication that this Commission or Congress are willing to let the high cost fund grow larger than the current level, which is nearly 170 percent higher than the level in 1999.<sup>10</sup>

### THE CURRENT DISTRIBUTION OF HIGH COST FUNDS

Given a fixed amount of available funding and our desire to see the high cost program restructured to facilitate universal access to next-generation broadband networks, we must look at how funds are currently distributed in order to assess how best to reallocate the fixed pool of resources.

The High Cost Fund is divided into seven separate sub-funds or programs, distinctions drawn primarily for the purposes of distinguishing between the fiscal demands of small and large incumbent carriers (confusingly called "rural" and "non-rural" carriers; competitive carriers support is based not on their size but on the size of the incumbent in whose study area they offer service).<sup>11</sup> Funds are apportioned at the study area level. Carriers operating in "rural" study areas account for all of the monies apportioned to the High Cost Loop (HCL), Safety Net Additive (SNA), Safety Valve Support (SVS), and Local Switching Support (LSS) programs, and 83 percent of the Interstate Common Line Support (ICLS) program funding. The two remaining programs, Interstate Access Support (IAS) and High Cost Model (HCM), support carriers operating in "non-rural" study areas (though approximately 25% of IAS support goes to carriers in rural study areas). Figure 1 summarizes the distribution of High Cost Fund monies between programs and study areas.

<sup>6</sup> All data herein are based on the Universal Service Administration Corporation's Second Quarter 2008 Filing Appendices, available at <http://www.universal-service.org/about/governance/fcc-filings/2008/quarter-2.aspx>.

<sup>7</sup> In the Matter of *High-Cost Universal Service Support*; *Federal-State Joint Board on Universal Service*, WC Docket No. 05-337, CC Docket No. 96-45, Recommended Decision, 22 FCC Rcd 8998 (Fed.-State Jt. Bd. 2007) (*2007 Recommended Decision*).

<sup>8</sup> In the Matter of *High-Cost Universal Service Support*; *Federal-State Joint Board on Universal Service*, WC Docket No. 05-337, CC Docket No. 96-45, Order, FCC 08-122, (released May 1, 2008).

<sup>9</sup> *2007 Recommended Decision*.

<sup>10</sup> *Universal Service Monitoring Report 2007*, CC Docket 98-202, December 2007. Total High Cost Fund support in 1999 was \$1.718 billion, with CETC support accounting for only \$500,000 of the total. For 2008 the projected HCF amount is \$4.62 billion, with \$1.52 billion flowing to CETCs. Incumbent HCF support has thus increase 80 percent since 1999, while CETC support has increased some 300,000 percent.

<sup>11</sup> The Act defines "rural telephone company" as "a local exchange carrier operating entity to the extent such entity: Provides common carrier service to any local exchange carrier study area that does not include either any incorporated place of 10,000 inhabitants or more, or any part thereof, based on the most recently available population statistics of the Bureau of the Census; or any territory, incorporated or unincorporated, included in an urbanized area, as defined by the Bureau of the Census as of August 10, 1993; Provides telephone exchange service, including exchange access, to fewer than 50,000 access lines; Provides telephone exchange service to any local exchange carrier study area with fewer than 100,000 access lines; or Has less than 15 percent of its access lines in communities of more than 50,000 on the date of enactment of the Telecommunications Act of 1996. See 47 U.S.C. § 153(37).

**Figure 1: High Cost Fund Support by Program and Study Area Type  
(Projected 2008)**

High Cost Program	Carriers in Rural Study Areas		Carriers in Non-Rural Study Areas		All Carriers	
	Annual Cost (est. 2008)	% of HCF	Annual Cost (est. 2008)	% of HCF	Annual Cost (est. 2008)	% of HCF
High Cost Loop (HCL)	\$1,477,563,492	32%	\$0	0%	\$1,477,563,492	32%
Safety Net Additive (SNA)	\$42,759,408	1%	\$0	0%	\$42,759,408	1%
Safety Valve Support (SVS)	\$1,021,668	0.02%	\$0	0%	\$1,021,668	0.02%
Local Switching Support (LSS)	\$475,096,980	10%	\$0	0%	\$475,096,980	10%
Interstate Common Line Support (ICLS)	\$1,323,918,276	29%	\$266,197,320	6%	\$1,590,115,596	34%
Interstate Access Support (IAS)	\$174,629,880	4%	\$511,944,624	11%	\$686,574,504	15%
High Cost Model Support (HCM)	\$0	0%	\$348,559,066	8%	\$348,559,066	8%
<b>All High Cost Fund Support (HCF)</b>	<b>\$3,494,989,704</b>	<b>76%</b>	<b>\$1,126,701,017</b>	<b>24%</b>	<b>\$4,621,690,721</b>	<b>100%</b>

Source: Author's Calculations based on USAC Second Quarter 2008 Filing Appendices

High Cost Fund support is available on a portable basis to any carrier designated by a state or the Commission to be an Eligible Telecommunications Carrier (ETC). As previously mentioned, much of the current impetus for USF reform stems from the rapid growth in support for competitive ETCs, who are primarily wireless carriers offering a service perceived by consumers to be a complementary, not a substitutable service. Thus, whereas Congress in 1996 likely envisioned a future market where incumbent and competitive ETCs compete for the same customer, the market has instead developed to where the typical household subscribes to a landline offered by an incumbent ETC while also subscribing to one or more mobile wireless lines offered by one or more competitive ETCs.

Because of the identical support rule, CETC support is based on the incumbents per line cost. This, as detailed by the Joint Board and many commenters in this proceeding, is problematic for numerous reasons, most importantly that it inflates the size of needed support in a manner completely divorced from cost. A prime example noted by the Joint Board<sup>12</sup> is the support CETCs receive from the Interstate Access Support and Interstate Common Line Support programs. These two programs are designed to offset revenue losses from the reduction in interstate access charges while also maintaining low subscriber line charges (SLCs). This is a sensible subsidy, but only if the subsidized carrier charges tariff-based access charges and only if they are not permitted to recover from the customer via increases in subscriber line charges the "lost" revenues resulting from a reduction in access charges. However, most CETCs are not subject to caps on subscriber line charges, and thus can recover any losses from access charge reduction from the end user.<sup>13</sup> Furthermore, the Commission has determined that wireless carriers cannot impose tariff-based access charges,<sup>14</sup> noting that many already operate in a bill and keep manner. Thus the need for competitive carriers to receive any support from IAS or ICLS is questionable at best.

In addition, wireless CETCs also receive Local Switching Support (LSS), which is based on the relatively high per line switching costs incurred by small rural LECs. But wireless networks are not designed in a similar manner and these carriers arguably have no demonstrated need for LSS support, certainly not at the same level as rural ILECs. In total, competitive carriers receive over \$900 million in annual IAS and ICLS support, which accounts for 60 percent of all CETC high cost funding and 20 percent of the entire High Cost Fund (see Figure 2).

<sup>12</sup> *In the Matter of High-Cost Universal Service Support; Federal State Joint Board on Universal Service*, WC Docket No. 05-337, CC Docket No. 96-45, Notice of Proposed Rulemaking, FCC 08-4, (released January 9, 2008), paragraph 23, (*Identical Support NPRM*).

<sup>13</sup> *Identical Support NPRM*, paragraph 23.

<sup>14</sup> *In the Matter of Petitions of Sprint PCS and AT&T Corp for Declaratory Ruling Regarding CMRS Access Charges*, WT Docket No. 01-316, Declaratory Ruling, FCC 02-203, (release July 3, 2002).



**Figure 2: High Cost Fund Support by Program and Carrier Type  
(Projected 2008)**

High Cost Program	Incumbent Carriers		Competitive Carriers		All Carriers	
	Annual Cost (est. 2008)	% of HCF	Annual Cost (est. 2008)	% of HCF	Annual Cost (est. 2008)	% of HCF
High Cost Loop (HCL)	\$1,033,675,776	22%	\$443,887,716	10%	\$1,477,563,492	32%
Safety Net Additive (SNA)	\$30,112,728	1%	\$12,646,680	0%	\$42,759,408	1%
Safety Valve Support (SVS)	\$681,780	0.01%	\$339,888	0%	\$1,021,668	0.02%
Local Switching Support (LSS)	\$340,104,000	7%	\$134,992,980	3%	\$475,096,980	10%
Interstate Common Line Support (ICLS)	\$1,015,043,136	22%	\$575,072,460	12%	\$1,590,115,596	34%
Interstate Access Support (IAS)	\$496,126,380	11%	\$190,448,124	4%	\$686,574,504	15%
High Cost Model Support (HCM)	\$184,685,242	4%	\$163,873,824	4%	\$348,559,066	8%
<b>All High Cost Fund Support (HCF)</b>	<b>\$3,100,429,045</b>	<b>67%</b>	<b>\$1,521,261,675</b>	<b>33%</b>	<b>\$4,621,690,721</b>	<b>100%</b>

Source: Author's Calculations based on USAC Second Quarter 2008 Filing Appendices

There are a total of 1,855 unique Study Areas participating in the High Cost Fund, with 1,798 receiving some amount of support in 2008. Approximately 150 million lines receive some type of HCF support, with nearly 100 million of these lines being those of non-rural carriers receiving Interstate Access Support.

Overall the average monthly cost per High Cost Fund supported line is just \$2.58. For those lines in non-rural carriers study areas the support is less than a dollar per month per line, while it is above \$12 per month per line in rural carrier study areas. In total, rural carrier study areas account for just 16 percent of all supported lines, but 76 percent of High Cost Fund support (see Figure 3).

**Figure 3: High Cost Fund Support by Study Area and Carrier Type  
(Projected 2008)**

Study Area Carrier Type <sup>a</sup>	Study Area Carrier Cost Type	Number of Supported Study Areas <sup>b</sup>	Annual High Cost Fund Support (est. 2008)	Supported Lines <sup>c</sup>	Average Monthly Cost Per Supported Line <sup>d</sup>	Percent of All Supported Lines	Percent of High Cost Fund
Rural	Average Schedule Incumbent	455	\$242,455,248	2,023,684	\$9.98	1%	5%
Rural	Cost Incumbent	899	\$2,243,974,656	17,080,176	\$10.95	11%	49%
Rural	Competitive	283	\$1,008,559,800	4,696,739	\$17.89	3%	22%
Non-Rural	Average Schedule Incumbent	1	\$2,838,648	107,530	\$2.20	0.1%	0.1%
Non-Rural	Cost Incumbent	70	\$611,160,490	92,882,783	\$0.55	62%	13%
Non-Rural	Competitive	230	\$512,701,876	33,224,821	\$1.29	22%	11%
<b>All Rural Carrier Areas</b>		<b>1,637</b>	<b>\$3,494,989,704</b>	<b>23,800,599</b>	<b>\$12.24</b>	<b>16%</b>	<b>76%</b>
<b>All Non-Rural Carrier Areas</b>		<b>301</b>	<b>\$1,126,701,017</b>	<b>126,215,134</b>	<b>\$0.74</b>	<b>84%</b>	<b>24%</b>
<b>All Average Schedule Incumbents</b>		<b>456</b>	<b>\$245,293,896</b>	<b>2,131,214</b>	<b>\$9.59</b>	<b>1%</b>	<b>5%</b>
<b>All Cost Incumbents</b>		<b>969</b>	<b>\$2,855,135,149</b>	<b>109,969,773</b>	<b>\$2.16</b>	<b>74%</b>	<b>62%</b>
<b>All Competitive Carriers</b>		<b>373</b>	<b>\$1,521,261,676</b>	<b>37,322,661</b>	<b>\$3.40</b>	<b>25%</b>	<b>33%</b>
<b>All High-Cost Fund</b>		<b>1,798</b>	<b>\$4,621,690,721</b>	<b>149,423,648</b>	<b>\$2.58</b>	<b>100%</b>	<b>100%</b>

<sup>a</sup> 176 of the 1,855 study areas (which are served mostly by competitive carriers) have some lines classified as rural, and some as non-rural. Five of these 176 study areas receive no High Cost Fund support.

<sup>b</sup> In total, 57 of the 1,855 study areas receive no support (mostly non-rural, cost carrier study areas). In total, 34,771,170 lines reported for these 57 study areas receive no high-cost fund support.

<sup>c</sup> For each study area and for each sub-high-cost-fund (except HCM) the number of supported "loops" (or "lines") is reported by USAC. For this table, the maximum number of loops for each study area + cost type combination is used as the "line" count.

<sup>d</sup> Weighted average based on number of loops in each study area.

Source: Author's Calculations based on USAC Second Quarter 2008 Filing Appendices

Though the Interstate Common Line Support program receives the most funding of the seven HCF programs, the High Cost Loop program is the costliest on a per-line basis. However, half of all HCL supported lines receive less than \$7 support per month per line. In total half of all lines receive less than 31 cents per month in high cost fund support, while 95 percent of all High Cost Fund supported lines receive less than \$12 support per month per line (see Figure 4).

**Figure 4: Per Line Monthly High Cost Fund Support by Program  
(Projected 2008)**

All Study Areas						
High Cost Program	Annual Cost (est. 2008)	Supported Lines*	Average Monthly Per Supported Line Cost†	Median Monthly Per Supported Line Cost†	95th Percentile Monthly Per Supported Line Cost†	99th Percentile Monthly Per Supported Line Cost†
High Cost Loop (HCL)	\$1,477,563,492	10,840,029	\$11.36	\$6.93	\$36.35	\$75.34
Safety Net Additive (SNA)	\$42,759,408	2,435,303	\$1.46	\$1.22	\$3.88	\$5.05
Safety Valve Support (SVS)	\$1,021,668	155,627	\$0.55	\$0.63	\$1.88	\$3.51
Local Switching Support (LSS)	\$475,096,980	10,669,574	\$3.71	\$2.58	\$9.14	\$18.32
Interstate Common Line Support (ICLS)	\$1,590,115,596	17,182,963	\$7.71	\$6.10	\$17.90	\$34.75
Interstate Access Support (IAS)	\$686,574,504	119,721,063	\$0.48	\$0.20	\$1.62	\$3.99
High Cost Model Support#	\$348,559,066	11,840,589	\$2.45	\$1.17	\$6.40	\$6.51
All High Cost Fund Support	\$4,621,690,721	149,423,648	\$2.58	\$0.31	\$11.49	\$34.52

\* Supported Lines are those reported for study areas that received non-zero funding from each respective program. USAC reports some study areas with lines that receive zero funding for each respective program.

# USAC reports High Cost Model Support by Study Area, but does not list the total number of supported loops. For this table, the number of HCM supported lines is the maximum total lines reported for a given study area receiving non-zero HCM support.

† Weighted based on number of loops in each study area, reported for each program. For the monthly per line support values for the entire High Cost Fund, the maximum lines reported for each study area is used.

*Source: Author's Calculations based on USAC Second Quarter 2008 Filing Appendices*

For non-rural study areas the per line monthly support is quite low, with half of all lines receiving less than 17 cents per month and 95 percent of all lines receiving \$5.15 or less in per line support per month. For rural study areas, half of all supported lines receive less than \$5 per line per month in HCF support. However, there are some relatively expensive rural study areas that weight up the average cost. In total, 95 percent of rural study area lines receive less than \$44 per month in per line support (see Figure 5).

**Figure 5: Per Line Monthly High Cost Fund Support  
by Program and Study Area Type  
(Projected 2008)**

Rural Study Areas						
High Cost Program (Carriers Operating in Rural Study Areas)	Annual Cost (est. 2008)	Supported Lines*	Average Monthly Per Supported Line Cost+	Median Monthly Per Supported Line Cost+	95th Percentile Monthly Per Supported Line Cost+	99th Percentile Monthly Per Supported Line Cost+
High Cost Loop (HCL)	\$1,477,563,492	10,840,029	\$11.36	\$6.93	\$36.35	\$75.34
Safety Net Additive (SNA)	\$42,759,408	2,435,303	\$1.46	\$1.22	\$3.88	\$5.05
Safety Valve Support (SVS)	\$1,021,668	155,627	\$0.55	\$0.63	\$1.88	\$3.51
Local Switching Support (LSS)	\$475,096,980	10,669,574	\$3.71	\$2.58	\$9.14	\$18.32
Interstate Common Line Support (ICLS)	\$1,323,918,276	13,312,135	\$8.29	\$6.52	\$20.01	\$38.51
Interstate Access Support (IAS)	\$174,629,880	9,774,769	\$1.49	\$0.98	\$4.52	\$9.27
High Cost Model Support#	\$0	0	\$0.00	\$0.00	\$0.00	\$0.00
All High Cost Fund Support for Rural Only Study Areas	\$3,494,989,704	23,800,599	\$12.24	\$4.85	\$43.75	\$99.72

Non-Rural Study Areas						
High Cost Program (Carriers Operating in Non-Rural Study Areas)	Annual Cost (est. 2008)	Supported Lines*	Average Monthly Per Supported Line Cost+	Median Monthly Per Supported Line Cost+	95th Percentile Monthly Per Supported Line Cost+	99th Percentile Monthly Per Supported Line Cost+
High Cost Loop (HCL)	\$0	0	\$0.00	\$0.00	\$0.00	\$0.00
Safety Net Additive (SNA)	\$0	0	\$0.00	\$0.00	\$0.00	\$0.00
Safety Valve Support (SVS)	\$0	0	\$0.00	\$0.00	\$0.00	\$0.00
Local Switching Support (LSS)	\$0	0	\$0.00	\$0.00	\$0.00	\$0.00
Interstate Common Line Support (ICLS)	\$266,197,320	3,870,828	\$5.73	\$6.10	\$6.32	\$6.89
Interstate Access Support (IAS)	\$511,944,624	109,360,919	\$0.39	\$0.19	\$1.40	\$2.62
High Cost Model Support#	\$348,559,066	11,724,175	\$2.48	\$1.17	\$6.40	\$6.51
All High Cost Fund Support for Non-Rural Only Study Areas	\$1,126,701,017	126,215,134	\$0.74	\$0.17	\$5.15	\$7.04

\* Supported Lines are those reported for study areas that received non-zero funding from each respective program. USAC reports some study areas with lines that receive zero funding for each respective program.

# USAC reports High Cost Model Support by Study Area, but does not list the total number of supported loops. For this table, the number of HCM supported lines is the maximum total lines reported for a given study area receiving non-zero HCM support.

^ 172 of the 1,801 study areas that receive non-zero support have some lines supported by IAS classified as rural, and some as non-rural. 171 of these are served by Competitive carriers, accounting for 99.33% of all lines in these 172 Study Areas.

+ Weighted based on number of loops in each study area, reported for each program. For the monthly per line support values for the entire High Cost Fund, the maximum lines reported for each study area is used.

*Source: Author's Calculations based on USAC Second Quarter 2008 Filing Appendices*

Incumbent lines account for three-quarters of all High Cost Fund-subsidized lines, with the bulk being IAS program lines. Half of all Incumbent supported lines receive less than 26 cents per line per month of HCF support, while 95% of all incumbent lines are supported at a cost of less than \$10 per month per line. Competitive carriers receive a similar level of support, with a median per line monthly cost of 62 cents, and a 95<sup>th</sup> percentile per line monthly cost of \$13.59 (see Figure 6). Given that competitive support is based on the incumbent's costs, these similarities are not too surprising.

**Figure 6: Per Line Monthly High Cost Fund Support  
by Program and Carrier Type  
(Projected 2008)**

Incumbent Carrier Study Areas						
High Cost Program (Incumbent Carriers Only)	Annual Cost (est. 2008)	Supported Lines*	Average Monthly Per Supported Line Cost+	Median Monthly Per Supported Line Cost+	95th Percentile Monthly Per Supported Line Cost+	99th Percentile Monthly Per Supported Line Cost+
High Cost Loop (HCL)	\$1,033,675,776	7,113,957	\$12.11	\$6.60	\$38.83	\$84.68
Safety Net Additive (SNA)	\$30,112,728	1,406,065	\$1.78	\$1.41	\$3.88	\$6.86
Safety Valve Support (SVS)	\$681,780	64,005	\$0.89	\$0.63	\$2.96	\$3.51
Local Switching Support (LSS)	\$340,104,000	6,988,765	\$4.06	\$2.80	\$11.07	\$21.32
Interstate Common Line Support (ICLS)	\$1,015,043,136	11,335,267	\$7.46	\$5.67	\$19.51	\$39.19
Interstate Access Support (IAS)	\$496,126,380	86,687,624	\$0.48	\$0.20	\$1.67	\$3.99
High Cost Model Support#	\$184,685,242	7,349,411	\$2.09	\$1.17	\$6.06	\$6.06
All High Cost Fund Support for Incumbent Carriers	\$3,100,429,045	112,100,987	\$2.30	\$0.26	\$9.85	\$40.16

Competitive Carrier Study Areas						
High Cost Program (Competitive Carriers Only)	Annual Cost (est. 2008)	Supported Lines*	Average Monthly Per Supported Line Cost+	Median Monthly Per Supported Line Cost+	95th Percentile Monthly Per Supported Line Cost+	99th Percentile Monthly Per Supported Line Cost+
High Cost Loop (HCL)	\$443,887,716	3,726,072	\$9.93	\$7.68	\$25.93	\$59.80
Safety Net Additive (SNA)	\$12,646,680	1,029,238	\$1.02	\$0.94	\$2.83	\$2.83
Safety Valve Support (SVS)	\$339,888	91,622	\$0.31	\$0.11	\$0.69	\$0.72
Local Switching Support (LSS)	\$134,992,980	3,680,809	\$3.06	\$2.16	\$8.33	\$9.22
Interstate Common Line Support (ICLS)	\$575,072,460	5,847,696	\$8.20	\$6.30	\$15.35	\$29.96
Interstate Access Support (IAS)	\$190,448,124	33,033,439	\$0.48	\$0.31	\$1.60	\$2.06
High Cost Model Support#	\$163,873,824	4,491,178	\$3.04	\$1.83	\$6.40	\$8.68
All High Cost Fund Support for Competitive Carriers	\$1,521,261,675	37,322,661	\$3.40	\$0.62	\$13.59	\$23.11

\* Supported Lines are those reported for study areas that received non-zero funding from each respective program. USAC reports some study areas with lines that receive zero funding for each respective program. There are 3 Study Areas (all served by Competitive carriers) that receive support, but report zero lines.

# USAC reports High Cost Model Support by Study Area, but does not list the total number of supported loops. For this table, the number of HCM supported lines is the maximum total lines reported for a given study area receiving non-zero HCM support.

+ Weighted based on number of loops in each study area, reported for each program. For the monthly per line support values for the entire High Cost Fund, the maximum lines reported for each study area is used.

Source: Author's Calculations based on USAC Second Quarter 2008 Filing Appendices

The per line monthly support data in Figures 3 through 6 seem to indicate that a substantial amount of lines that are supported by the Universal Service Fund receive relatively small amounts of per line support. This calls into question the need for such support for given the Act's requirement for "reasonably comparable" rates. Arguably, it does not seem unreasonable for rates in rural areas to be a few dollars higher than in urban areas (and in fact, many state regulators keep rural rates *below* the level in urban areas).

Furthermore, many of these supported lines are either located in markets with telephony service offered by multiple non-USF supported companies (such as VoIP over cable or non-USF supported mobile wireless carriers), or they are USF-supported lines offered by carriers whose rates are not regulated in any fashion (such as wireless CETCs).

Thus it is possible that some USF supported carriers are receiving small amounts of per line support without any associated reduction in consumer prices (i.e. mobile wireless providers, who are not rate-regulated). It is also possible that incumbent carriers are receiving USF support that enables them to hold their retail rates below cost in the face of competition from other unregulated technologies that offer a higher level of service (such as VoIP over broadband offered by cable companies or fixed terrestrial wireless companies). In the incumbent LEC case we of course recognize that their rates are often set at a fixed level by state authorities (and by the FCC in the case of the SLC). However, as we will discuss below, over a dozen states have completely or near completely deregulated retail rates charged by incumbent LECs. Furthermore, the majority of incumbent USF funds are distributed to price-cap regulated carriers, who arguably under the incentive-regulation scheme have the ability to operate profitably without universal service support.<sup>15</sup>

Given the nature of the converged marketplace that has emerged since the 1996 Act, and the essential nature of broadband infrastructure (which supports essential applications such as telephony and email), it is worth knowing what portion of the fund goes to funding telephony lines that require relatively minor amounts of per-line monthly support. Such funding could arguably be diverted towards supporting rural broadband infrastructure, without significantly impacting telephony subscribers and maintaining the principles of reasonably comparable rates and competitive neutrality.

It turns out that a *substantial* amount of the HCF is used to offer marginal per line support. Half of the \$4.6 billion High Cost Fund goes to supporting lines that require less than \$15 per month in per line support. A full 70 percent of the fund goes to supporting lines that require less than \$30 per month in per line support (see Figure 7). Stated another way, 94 percent of all HCF lines receive less than \$10 per month in support, while only 1.3 percent of all HCF lines receive more than \$30 per month in support. In total, \$1.9 billion annually goes to support lines requiring less than \$10 per month each, while \$3.3 billion annually goes to support lines requiring less than \$30 per month each in funding. If we accept the Joint Board's recommendation that broadband should be a universal supported service, and if the fund must be held at the current level, then the logical conclusion is that the funds going to lines with only marginal support needs would be better utilized for funding broadband infrastructure builds in unserved areas.

---

<sup>15</sup> The Joint Board and the Commission of course rejected this notion when first establishing the High Cost Fund in 1996. See *1996 Recommended Decision*, paragraph 158; *1996 Universal Service Order*, paragraph 145. The Commission did so noting that "price cap regulation is an important tool for smoothing the transition to competition and that its use should not foreclose price cap companies from receiving universal service support." It seems that now 12 years later in marketplace of convergence with many price cap carriers offering non-rate regulated services (broadband and/or television) and some price cap carriers relieved by states from rate regulation, that is may be worth revisiting this decision.

Figure 7: Per Line Monthly High Cost Fund Support by Cost - All Carriers  
(Projected 2008)

All Carriers				
Amount of High Cost Support Per Line is...	Number of Lines	Percent of All Supported Lines*	Total Annual High Cost Support	Percent of High Cost Fund
Less than \$10 Per Month	140,480,041	94.0%	\$1,851,907,533	40.1%
Less than \$20 Per Month	145,481,992	97.4%	\$2,678,263,068	57.9%
Less than \$30 Per Month	147,526,129	98.7%	\$3,275,332,660	70.9%
Less than \$40 Per Month	148,195,881	99.2%	\$3,549,867,485	76.8%
Less than \$50 Per Month	148,659,840	99.5%	\$3,797,848,493	82.2%
Less than \$60 Per Month	148,893,982	99.6%	\$3,952,949,669	85.5%
Less than \$75 Per Month	149,099,449	99.8%	\$4,118,967,737	89.1%
Less than \$100 Per Month	149,227,811	99.9%	\$4,252,282,001	92.0%
Less than \$500 Per Month	149,419,859	100.0%	\$4,565,940,761	98.8%
Less than \$1000 Per Month	149,420,550	100.0%	\$4,571,440,145	98.9%
Less than \$1433 Per Month	149,423,648	100.0%	\$4,621,690,721	100.0%

\* Supported Lines are the maximum reported for study areas that received non-zero funding. There are 149,423,648 lines that received some type of high-cost funding.

Source: Author's Calculations based on USAC Second Quarter 2008 Filing Appendices

To put the above data into perspective, consider that the average per month cost of local exchange service is approximately \$36.<sup>16</sup> Contrast that with the average per month cost of cable broadband Internet of \$41<sup>17</sup> and the cost of unlimited-calling full-featured VoIP service at \$25 per month.<sup>18</sup> Also consider that cable modem service is available to approximately 95 percent of all U.S. households, including many of those in USF-supported areas. Thus, for a total cost of \$66, a consumer who lived in a USF-supported study area that is also served by a cable modem provider could pay \$66 per month for unlimited broadband Internet access *and* unlimited local and long distance calling; or that same consumer could pay \$36 for local exchange service, subsidized by USF. Now assume that the per line USF support was \$30 per month, a reasonable assumption given that 70% of supported lines receive less than this amount. In that case, if USF funds were not available, the cost of local-calling-only telephone service would be *equal* to the cost of high-speed broadband plus unlimited local-and-long-distance VoIP services.

<sup>16</sup> See Trends in Telephone Service, Industry Analysis and Technology Division Wireline Competition Bureau, February 2007, Table 3-2. In 2005 the average monthly household expenditure for local exchange service was \$36, with long distance wireline service accounting for an additional \$8, though this survey counted bundled wireline local and long distance service as purely local. Wireless service accounted for an average of \$53 in monthly expenditures per household.

<sup>17</sup> See John B. Horrigan, "Home Broadband Adoption 2006," Pew Internet & American Life Project, May 28, 2006.

<sup>18</sup> Vonage's Residential Premium Unlimited VoIP plan offers the following for \$24.99 a month: Unlimited local and long distance in the US, Canada, and Puerto Rico; free calls to landline phones in Italy, France, Spain, UK and Ireland; plus 25 additional calling features like call waiting, voicemail and caller ID.

This possible real-world example illustrates just exactly why the continued focus on telephony in a broadband era runs counter to the modernization principles of universal service as embodied in the 1996 Act, and counter to the principle of competitive neutrality adopted by the Commission in 1996. It could be argued that the continued support of lines that require less than \$20 per month in per line support (97 percent of all HCF-supported lines) sends the wrong economic signals to the market, and impedes the transition into broadband era. Also consider the fact that 26 percent of all high cost funding goes to support competitive carrier lines needing less than \$20 per month of per line support *based not on their own per line costs but on the ILEC's* (see Figure 8), and the fact that the subscribers of the vast majority of these lines do not benefit from rate regulation.

**Figure 8: Per Line Monthly High Cost Fund Support by Cost and Carrier Type  
(Projected 2008)**

Incumbent Carriers						
Amount of High Cost Support Per Line is...	Number of Lines	Percent of All Supported Lines*	Percent of All Supported Incumbent Lines	Total Annual High Cost Support	Percent of High Cost Fund	Percent of All Incumbent's Share of High Cost Fund
Less than \$10 Per Month	106,608,541	71.3%	95.1%	\$1,055,071,945	22.8%	34.0%
Less than \$20 Per Month	109,003,109	72.9%	97.2%	\$1,464,650,905	31.7%	47.2%
Less than \$30 Per Month	110,385,014	73.9%	98.5%	\$1,881,054,637	40.7%	60.7%
Less than \$40 Per Month	110,964,648	74.3%	99.0%	\$2,118,003,481	45.8%	68.3%
Less than \$50 Per Month	111,393,131	74.5%	99.4%	\$2,346,546,829	50.8%	75.7%
Less than \$60 Per Month	111,609,186	74.7%	99.6%	\$2,489,769,661	53.9%	80.3%
Less than \$75 Per Month	111,795,106	74.8%	99.7%	\$2,640,669,457	57.1%	85.2%
Less than \$100 Per Month	111,921,656	74.9%	99.8%	\$2,771,838,565	60.0%	89.4%
Less than \$500 Per Month	112,098,380	75.0%	100.0%	\$3,064,254,313	66.3%	98.8%
Less than \$1000 Per Month	112,099,071	75.0%	100.0%	\$3,069,753,697	66.4%	99.0%
Less than \$1433 Per Month	112,100,987	75.0%	100.0%	\$3,100,429,045	67.1%	100.0%

Competitive Carriers						
Amount of High Cost Support Per Line is...	Number of Lines	Percent of All Supported Lines*	Percent of All Supported Competitive Lines	Total Annual High Cost Support	Percent of High Cost Fund	Percent of All Competitive Carriers' Share of High Cost Fund
Less than \$10 Per Month	33,871,500	22.7%	90.8%	\$796,835,587	17.2%	52.4%
Less than \$20 Per Month	36,478,883	24.4%	97.7%	\$1,213,612,163	26.3%	79.8%
Less than \$30 Per Month	37,141,115	24.9%	99.5%	\$1,394,278,023	30.2%	91.7%
Less than \$40 Per Month	37,231,233	24.9%	99.8%	\$1,431,864,003	31.0%	94.1%
Less than \$50 Per Month	37,266,709	24.9%	99.9%	\$1,451,301,663	31.4%	95.4%
Less than \$60 Per Month	37,284,796	25.0%	99.9%	\$1,463,180,007	31.7%	96.2%
Less than \$75 Per Month	37,304,343	25.0%	100.0%	\$1,478,298,279	32.0%	97.2%
Less than \$100 Per Month	37,306,155	25.0%	100.0%	\$1,480,443,435	32.0%	97.3%
Less than \$500 Per Month	37,321,479	25.0%	100.0%	\$1,501,686,447	32.5%	98.7%
Less than \$1000 Per Month	37,321,479	25.0%	100.0%	\$1,501,686,447	32.5%	98.7%
Less than \$1381 Per Month	37,322,661	25.0%	100.0%	\$1,521,261,675	32.9%	100.0%

\* Supported Lines are the maximum reported for study areas that received non-zero funding. There are 149,442,187 lines that received some type of high-cost funding. 112,100,987 of these are Incumbent lines. 37,322,661 of these are Competitive Carrier lines.

Source: Author's Calculations based on USAC Second Quarter 2008 Filing Appendices

This latter point is very important, as the continued need for USF support should be tied in some manner to both actual costs *and* a tangible consumer benefit in the form of a proportional lowering of the retail service cost. In the case of non-rate regulated carriers, it is not at all clear that this consumer benefit exists.

Questioning the need for USF support to maintain “reasonably comparable” rates is certainly justified for those carriers whose rates are not regulated and whose own costs are likely far lower than the subsidy received. But the data seem to indicate that the need for continued high cost funding to keep non-rural carrier’s rates “reasonably comparable” is also questionable. Non-rural carrier lines requiring less than \$10 per month in per line support account for nearly 100 percent of all non-rural supported lines, and nearly 100 percent of the \$1.13 billion in high cost funding going to non-rural carriers (see Figure 9).

**Figure 9: Per Line Monthly High Cost Fund Support  
by Cost and Study Area Type  
(Projected 2008)**

Carriers Operating in Rural Study Areas						
Amount of High Cost Support Per Line is...	Number of Lines	Percent of All Supported Lines*	Percent of All Supported Rural SA Lines	Total Annual High Cost Support	Percent of High Cost Fund	Percent of All Rural SA's Share of High Cost Fund
Less than \$10 Per Month	15,584,230	10.4%	65.5%	\$563,663,232	12.2%	16.1%
Less than \$20 Per Month	19,123,572	12.8%	80.3%	\$1,181,434,656	25.6%	33.8%
Less than \$30 Per Month	21,384,629	14.3%	89.8%	\$1,850,241,984	40.0%	52.9%
Less than \$40 Per Month	22,394,598	15.0%	94.1%	\$2,272,717,632	49.2%	65.0%
Less than \$50 Per Month	22,971,304	15.4%	96.5%	\$2,581,050,228	55.8%	73.9%
Less than \$60 Per Month	23,206,815	15.5%	97.5%	\$2,737,086,528	59.2%	78.3%
Less than \$75 Per Month	23,415,457	15.7%	98.4%	\$2,905,751,796	62.9%	83.1%
Less than \$100 Per Month	23,603,208	15.8%	99.2%	\$3,107,320,956	67.2%	88.9%
Less than \$500 Per Month	23,795,928	15.9%	100.0%	\$3,424,639,944	74.1%	98.0%
Less than \$1000 Per Month	23,796,619	15.9%	100.0%	\$3,430,139,328	74.2%	98.1%
Less than \$1433 Per Month	23,800,599	15.9%	100.0%	\$3,494,989,704	75.6%	100.0%

Carriers Operating in Non-Rural Study Areas						
Amount of High Cost Support Per Line is...	Number of Lines	Percent of All Supported Lines*	Percent of All Supported Non- Rural SA Lines	Total Annual High Cost Support	Percent of High Cost Fund	Percent of All Non-Rural SA's Share of High Cost Fund
Less than \$1 Per Month	105,397,072	70.5%	83.5%	\$279,337,987	6.0%	24.8%
Less than \$5 Per Month	119,700,529	80.1%	94.8%	\$625,255,977	13.5%	55.5%
Less than \$10 Per Month	126,205,575	84.5%	100.0%	\$1,124,833,040	24.3%	99.8%
Less than \$15 Per Month	126,210,574	84.5%	100.0%	\$1,125,546,490	24.4%	99.9%
Less than \$20 Per Month	126,210,574	84.5%	100.0%	\$1,125,546,490	24.4%	99.9%
Less than \$25 Per Month	126,215,134	84.5%	100.0%	\$1,126,701,017	24.4%	100.0%

\* Supported Lines are the maximum reported for study areas that received non-zero funding. There are 149,423,648 lines that received some type of high-cost funding. 23,800,599 of these are lines in Rural Study Areas. 126,215,134 of these are lines in Non-Rural Study Areas.

Source: Author's Calculations based on USAC Second Quarter 2008 Filing Appendices

Figure 9 shows that the monthly per line cost burden is much higher for carriers operating in rural study areas as compared to those operating in non-rural study areas. But even here the relative support burden is still relatively small for the vast majority of lines. Over 65 percent of the lines in rural study areas receive less than \$10 per month in per line high cost support. Over 80 percent of the lines in rural study areas receive less than \$20 per month in per line high cost support, accounting for one-third of all funding going to carriers in rural study areas. The data in Figure 9 also indicates where the focus of the High Cost Fund could be directed -- on the lines with monthly per line support needs above \$20, or the 4.7 million lines in rural study areas that currently receive \$2.3 billion in annual high cost fund support.



Figure 10 details the distribution of per line monthly costs for each of the seven High Cost Fund programs. The Interstate Access Support and High Cost Model programs all have very low per line monthly support costs accounting for virtually all of the lines supported by these programs. The amount of per line support for the Safety Net Additive and Safety Valve Support programs are also low, with the most expensive lines requiring less than \$7 per month in per line support. The High Cost Loop, Local Switching Support and Interstate Common Line Support programs have lines with substantially higher monthly support needs. But even here a large amount of the funding goes to support lines at a level of less than \$20 per month per line.

**Figure 10: Per Line Monthly High Cost Fund Support  
by Program  
(Projected 2008)**

High Cost Loop Program - All Study Areas						
Amount of High Cost Loop Support Per Line is...	Number of Lines	Percent of All Supported Lines*	Percent of All Supported HCL Program Lines	Total Annual High Cost Support	Percent of High Cost Fund	Percent of All HCL Program's Share of High Cost Fund
Less than \$10 Per Month	6,866,115	4.6%	63.3%	\$345,622,956	7.5%	23.4%
Less than \$20 Per Month	9,336,877	6.2%	86.1%	\$758,525,436	16.4%	51.3%
Less than \$30 Per Month	10,174,586	6.8%	93.9%	\$1,002,935,784	21.7%	67.9%
Less than \$40 Per Month	10,407,680	7.0%	96.0%	\$1,101,375,348	23.8%	74.5%
Less than \$50 Per Month	10,540,593	7.1%	97.2%	\$1,172,585,832	25.4%	79.4%
Less than \$60 Per Month	10,687,302	7.2%	98.6%	\$1,272,924,540	27.5%	86.2%
Less than \$75 Per Month	10,730,965	7.2%	99.0%	\$1,308,146,760	28.3%	88.5%
Less than \$100 Per Month	10,805,607	7.2%	99.7%	\$1,386,819,276	30.0%	93.9%
Less than \$500 Per Month	10,836,049	7.3%	100.0%	\$1,436,086,524	31.1%	97.2%
Less than \$876 Per Month	10,840,029	7.3%	100.0%	\$1,477,563,492	32.0%	100.0%

\* Supported Lines are the maximum reported for the HCL program in study areas that received non-zero HCL funding. There are 149,423,648 lines that received some type of high-cost funding. 10,840,029 of these are lines receive High Cost Fund Program support.

Safety Net Additive Program - All Study Areas						
Amount of Safety Net Additive Support Per Line is...	Number of Lines	Percent of All Supported Lines*	Percent of All Supported SNA Program Lines	Total Annual High Cost Support	Percent of High Cost Fund	Percent of All SNA Program's Share of High Cost Fund
Less than \$1 Per Month	792,314	0.5%	32.5%	\$6,047,976	0.1%	14.1%
Less than \$2 Per Month	1,934,999	1.3%	79.5%	\$24,505,704	0.5%	57.3%
Less than \$3 Per Month	2,290,954	1.5%	94.1%	\$35,302,956	0.8%	82.6%
Less than \$4 Per Month	2,398,493	1.6%	98.5%	\$40,213,056	0.9%	94.0%
Less than \$5 Per Month	2,409,883	1.6%	99.0%	\$40,793,160	0.9%	95.4%
Less than \$6 Per Month	2,415,673	1.6%	99.2%	\$41,168,844	0.9%	96.3%
Less than \$7 Per Month	2,435,303	1.6%	100.0%	\$42,759,408	0.9%	100.0%

\* Supported Lines are the maximum reported for the SNA program in study areas that received non-zero SNA funding. There are 149,423,648 lines that received some type of high-cost funding. 2,434,303 of these are lines receive Safety Net Additive Program support.

Safety Valve Support Program - All Study Areas						
Amount of Safety Valve Support Per Line is...	Number of Lines	Percent of All Supported Lines*	Percent of All Supported SVS Program Lines	Total Annual High Cost Support	Percent of High Cost Fund	Percent of All SVS Program's Share of High Cost Fund
Less than \$1 Per Month	147,842	0.1%	95.0%	\$749,556	0.0%	73.4%
Less than \$2 Per Month	149,577	0.1%	96.1%	\$788,652	0.0%	77.2%
Less than \$3 Per Month	152,881	0.1%	98.2%	\$901,272	0.0%	88.2%
Less than \$4 Per Month	155,505	0.1%	99.9%	\$1,011,708	0.0%	99.0%
Less than \$5 Per Month	155,505	0.1%	99.9%	\$1,011,708	0.0%	99.0%
Less than \$6 Per Month	155,505	0.1%	99.9%	\$1,011,708	0.0%	99.0%
Less than \$7 Per Month	155,627	0.1%	100.0%	\$1,021,668	0.0%	100.0%

\* Supported Lines are the maximum reported for the SVS program in study areas that received non-zero SVS funding. There are 149,423,648 lines that received some type of high-cost funding. 155,627 of these are lines receive Safety Valve Support Program support.

Source: Author's Calculations based on USAC Second Quarter 2008 Filing Appendices

**Figure 10 (continued): Per Line Monthly High Cost Fund Support  
by Program  
(Projected 2008)**

Local Switching Support Program - All Study Areas						
Amount of Local Switching Support Per Line is...	Number of Lines	Percent of All Supported Lines*	Percent of All Supported LSS Program Lines	Total Annual High Cost Support	Percent of High Cost Fund	Percent of All LSS Program's Share of High Cost Fund
Less than \$1 Per Month	1,227,551	0.8%	11.5%	\$9,813,372	0.2%	2.1%
Less than \$5 Per Month	8,273,924	5.5%	77.5%	\$225,055,536	4.9%	47.4%
Less than \$10 Per Month	10,229,400	6.8%	95.9%	\$384,705,216	8.3%	81.0%
Less than \$25 Per Month	10,624,552	7.1%	99.6%	\$452,561,388	9.8%	95.3%
Less than \$50 Per Month	10,656,518	7.1%	99.9%	\$464,846,436	10.1%	97.8%
Less than \$75 Per Month	10,668,330	7.1%	100.0%	\$473,387,076	10.2%	99.6%
Less than \$100 Per Month	10,668,830	7.1%	100.0%	\$473,871,960	10.3%	99.7%
Less than \$240 Per Month	10,669,574	7.1%	100.0%	\$475,096,980	10.3%	100.0%

\* Supported Lines are the maximum reported for the LSS program in study areas that received non-zero LSS funding. There are 149,423,648 lines that received some type of high-cost funding. 10,669,574 of these are lines receive Local Switching Support Program support.

Interstate Common Line Support Program - All Study Areas						
Amount of Interstate Common Line Support Per Line is...	Number of Lines	Percent of All Supported Lines*	Percent of All Supported ICLS Program Lines	Total Annual High Cost Support	Percent of High Cost Fund	Percent of All ICLS Program's Share of High Cost Fund
Less than \$10 Per Month	13,653,981	9.1%	79.5%	\$859,830,024	18.6%	54.1%
Less than \$20 Per Month	16,515,781	11.1%	96.1%	\$1,319,352,816	28.5%	83.0%
Less than \$30 Per Month	16,944,175	11.3%	98.6%	\$1,446,262,944	31.3%	91.0%
Less than \$40 Per Month	17,075,073	11.4%	99.4%	\$1,501,361,304	32.5%	94.4%
Less than \$50 Per Month	17,130,412	11.5%	99.7%	\$1,531,387,584	33.1%	96.3%
Less than \$60 Per Month	17,154,940	11.5%	99.8%	\$1,547,120,232	33.5%	97.3%
Less than \$75 Per Month	17,175,437	11.5%	100.0%	\$1,562,713,368	33.8%	98.3%
Less than \$100 Per Month	17,176,156	11.5%	100.0%	\$1,563,462,384	33.8%	98.3%
Less than \$500 Per Month	17,182,941	11.5%	100.0%	\$1,589,896,872	34.4%	100.0%
Less than \$829 Per Month	17,182,963	11.5%	100.0%	\$1,590,115,596	34.4%	100.0%

\* Supported Lines are the maximum reported for the ICLS program in study areas that received non-zero ICLS funding. There are 149,423,648 lines that received some type of high-cost funding. 17,182,963 of these are lines receive Interstate Common Line Support Program support.

Source: Author's Calculations based on USAC Second Quarter 2008 Filing Appendices

**Figure 10 (continued): Per Line Monthly High Cost Fund Support  
by Program  
(Projected 2008)**

Interstate Access Support Program - All Study Areas						
Amount of Interstate Access Support Per Line is...	Number of Lines	Percent of All Supported Lines*	Percent of All Supported IAS Program Lines	Total Annual High Cost Support	Percent of High Cost Fund	Percent of All IAS Program's Share of High Cost Fund
Less than \$1 Per Month	106,098,392	71.0%	88.6%	\$361,278,924	7.8%	52.6%
Less than \$2 Per Month	115,589,506	77.4%	96.5%	\$518,840,124	11.2%	75.6%
Less than \$3 Per Month	118,003,107	79.0%	98.6%	\$589,203,648	12.7%	85.8%
Less than \$4 Per Month	119,025,558	79.7%	99.4%	\$633,369,528	13.7%	92.3%
Less than \$5 Per Month	119,268,600	79.8%	99.6%	\$646,393,788	14.0%	94.1%
Less than \$10 Per Month	119,710,146	80.1%	100.0%	\$684,834,408	14.8%	99.7%
Less than \$15 Per Month	119,719,921	80.1%	100.0%	\$686,227,548	14.8%	99.9%
Less than \$20 Per Month	119,719,921	80.1%	100.0%	\$686,227,548	14.8%	99.9%
Less than \$26 Per Month	119,721,063	80.1%	100.0%	\$686,574,504	14.9%	100.0%

\* Supported Lines are the maximum reported for the IAS program in study areas that received non-zero IAS funding. There are 149,423,648 lines that received some type of high-cost funding. 119,721,063 of these are lines receive Interstate Access Support Program support.

High Cost Model Program - All Study Areas						
Amount of High Cost Model Per Line is...	Number of Lines	Percent of All Supported Lines*	Percent of All Supported HCM Program Lines	Total Annual High Cost Support	Percent of High Cost Fund	Percent of All HCM Program's Share of High Cost Fund
Less than \$1 Per Month	4,795,472	3.2%	40.5%	\$33,608,609	0.7%	9.6%
Less than \$2 Per Month	7,289,303	4.9%	61.6%	\$74,859,030	1.6%	21.5%
Less than \$3 Per Month	8,243,844	5.5%	69.6%	\$102,547,816	2.2%	29.4%
Less than \$4 Per Month	9,005,655	6.0%	76.1%	\$134,930,277	2.9%	38.7%
Less than \$5 Per Month	9,033,791	6.0%	76.3%	\$136,383,018	3.0%	39.1%
Less than \$10 Per Month	11,836,029	7.9%	100.0%	\$347,504,167	7.5%	99.7%
Less than \$15 Per Month	11,836,029	7.9%	100.0%	\$347,504,167	7.5%	99.7%
Less than \$20 Per Month	11,839,664	7.9%	100.0%	\$348,283,958	7.5%	99.9%
Less than \$25 Per Month	11,840,589	7.9%	100.0%	\$348,559,066	7.5%	100.0%

\* Supported Lines are the maximum reported for study areas that received non-zero funding. There are 149,423,648 lines that received some type of high-cost funding. 11,840,589 of these are lines are in study areas that receive High Cost Model Program support.

Source: Author's Calculations based on USAC Second Quarter 2008 Filing Appendices

These data are very informative, for if policymakers are serious about implementing a USF reform plan that is truly modernizing, then funds will have to be shifted and short-term sacrifices will have to be made to achieve long-term benefits. However, we should make it very clear that we are not very comfortable with the notion of consumer rates for basic telephone service rising -- indeed, because of convergence and joint/common cost we'd fully expect such rates to be *declining* precipitously. This is why it is so important for the rate regulatory accounting models to also be reformed to account for convergence. If this is done (as discussed below), we believe that regulated telephone rates will not need to be adjusted upwards, even as support for marginal-need lines is phased down.

Meaningful USF reform requires upsetting the status quo, leading to short-term discomfort all around. We recognize that the utility consumers derive from broadband services are far greater than that of telephony, and that given the choice between slightly higher telephony rates or new broadband service in unserved areas, most consumers would choose the latter. Though millions of Americans currently benefit from subsidized telephony, those subsidies are paid by millions more who reap very small indirect benefits from the fund. A shifting of funds towards broadband would greatly increase the direct benefits to those receiving the new services, and it would also vastly improve the indirect benefits to those paying for the bulk of the subsidy.

The path of universal service policy has reached a fork in the road, where there are difficult choices to be made. We feel that in the long run, the greatest level of social and consumer benefits can only be achieved by transitioning away from telephony support and increasing support for broadband infrastructure deployment.

**MODERNIZING THE FUND TO SUPPORT BROADBAND IN A COST-EFFICIENT MANNER:  
REDIRECTING SUPPORT TO BROADBAND**

We now move to constructing the architecture for a new modernized universal service High Cost Fund. We begin by answering some key questions in order to define the scope of the problem and the funding needs:

- How many U.S. homes have no access to broadband service?
- What quality level constitutes a reasonably comparable and potentially future-proof definition of broadband service?
- How much will it cost to deploy this service to all unserved areas?
- And what will be the expected level of ongoing support needed to ensure that the new HCF-supported infrastructure can be maintained at an end-user cost that is reasonably comparable to the national average?

While there is no definitive inventory of U.S. premises that lack the ability to subscribe to broadband service, there are a few data points that allow us to formulate a reasonable estimate of the true number of unserved households. First, the National Cable and Telecommunications Association estimates that 99 percent of U.S. households are passed by cable television service.<sup>19</sup> FCC Form 477 data indicates that 96 percent of homes where cable service is available have access to cable modem service.<sup>20</sup> From this we conclude that as many as 95 percent of all U.S. homes can purchase cable modem broadband service; though it is likely somewhat lower than this, perhaps 92 percent (based on estimate from NCTA). That is, approximately 9 million of the nearly 118 million U.S. households lack the ability to subscribe to cable modem broadband.<sup>21</sup> Of course it is possible that some of these homes that lack cable modem access can purchase DSL service. Form 477 data indicates that 79 percent of ILEC lines are DSL capable. But Form 477 provides no estimate of how the cable modem and DSL availability figures overlap. So while there may be DSL service available in areas without cable modem service (and of course vice versa), we feel that an estimate of between 7 and 9 million homes unserved by broadband is reasonable.<sup>22</sup>

To answer the question of what constitutes a minimal level of service quality to merit the definition of “broadband”, we will rely on the statutory guidance laid out in Section 706 of the 1996 Act. The act defined the term “advanced telecommunications capability” as “high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology.”<sup>23</sup> Currently, the best available compression technology requires approximately 5 Mbps (5 million bits per second) in bandwidth to transmit reasonably high quality high-

<sup>19</sup> *In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, MB Docket No. 05-255, Twelfth Annual Report, (released March 3, 2006), paragraph 30.

<sup>20</sup> *High-Speed Services for Internet Access: Status as of December 31, 2006*, Industry Analysis and Technology Division, Wireline Competition Bureau, Table 14.

<sup>21</sup> The figure for the total number of U.S. households varies depending on the particular U.S. Census Bureau source used. The October 2007 Current Population Survey puts the total number of U.S. households at 117,840,000. The 2006 American Community Survey estimated 111,617,402 U.S. households, while the 2005 ACS estimated 111,090,617 U.S. households. Thus it is unclear if the 2007 CPS number is accurate, as it seems high based on the 2005 and 2006 data.

<sup>22</sup> We are explicitly excluding satellite broadband from this estimate, as the high latency and slow speed (particularly on the upload side) of this service render it arguably substandard for the purposes of facilitating VoIP service. We also exclude fixed wireless service, which constitutes a very small percentage of all U.S. broadband lines (0.75% of all residential advanced service lines). And we specifically exclude mobile wireless broadband service, as the carrier's deployment of 3G capable services has been almost exclusively limited to urban and suburban areas. Furthermore, 3G speeds are still slow enough (especially on the upload side) to arguably not meet a reasonable definition of true broadband.

<sup>23</sup> See § 706(c) of the 1996 Act.

definition video content.<sup>24</sup> Thus, we will define the minimum level of broadband service quality for future USF support to be 5Mbps symmetrical, with latencies no lower than that needed to enable real-time VoIP calls of superior quality. However, while a 5Mbps symmetrical definition is adequate for the 2008 world, it may not be for the 2018 world. Thus, we will also define the quality level to include scalability: supported infrastructure should meet the 5Mbps symmetrical threshold, and be capable of scaling much higher with minimal additional cost.

Finally, we must estimate the initial and ongoing costs of providing the above-defined level of broadband service to the 6 to 8 million households that will be served under the reformed HCF. This is no easy task, as estimates depend completely on the particulars of each service area, as well as the type of technology used. While we *do not* propose the type of technology that the broadband High Cost Fund should support (see more below), for the purposes of estimation we will choose fiber-optic-to-the-home (FTTH) technology. We do this for two reasons. First, FTTH currently is the only consumer technology deployed that is capable of offering dedicated symmetrical bandwidths approaching (or exceeding) 100Mbps -- a bandwidth that is arguably "future-proof". Second, for the purposes of cost-estimations we feel it is prudent to be conservative -- i.e. to overestimate when possible. FTTH being a wireline technology is likely to have initial deployment costs that exceed fixed wireless or 4G mobile wireless (or any other wireless) technologies. FTTH is also likely to have higher initial costs than copper-based solutions like VDSL, but lower ongoing and maintenance costs.

Using FTTH as the proxy technology for cost estimates, we suggest that the 7-9 million unserved homes can be connected at an average cost ranging between \$2,000 and \$5,000 per home (see footnote for details).<sup>25</sup> Thus the total funding needed to serve all currently unserved homes could be as little as \$14 billion or as much as \$45 billion, with the likely cost falling somewhere between \$25 and \$30 billion. We further assume that the ongoing maintenance and operation (M&O) costs to be approximately 10 percent of the initial capital costs, or between \$17 and \$42 per month per home, with the likely M&O cost falling around \$30 per month per home.<sup>26</sup> Obviously all or a portion of this will be offset by user subscription fees, meaning for some study areas the M&O needs from the HCF will be minimal or non-existent.

Thus, the move to a modernized USF under our model will require approximately \$30 billion for infrastructure deployment and a substantially smaller amount for ongoing operation and maintenance costs not recouped by end-user charges. This price tag may be lower, given the \$7 billion allocated for broadband deployment and adoption in the American Recovery and Re-investment Act.

<sup>24</sup> The MPEG-4 codec, version h.264 (used notably by IP video service provider Apple) transmits HD video with an approximate average bitrate of 4.5Mbps. DBS providers also use MPEG-4 with a similar bit rate. The older MPEG-2 codec still in use by cable operators requires between 12 and 20 Mbps. In general, the more "action" or motion in the video, the higher the bitrate needed to maintain a constant level of quality.

<sup>25</sup> This estimate is arrived at by synthesizing several sources and then making a good-faith guess. A 2001 study estimated an average cost of \$1000 per home to wire every U.S. home with fiber (see "Broadband: Bringing Home the Bits," U.S. Computer Science and Telecommunications Board, November 2001). The Fiber to the Home Council now puts this at \$800 per home (see [www.ftthcouncil.org/UserFiles/File/ftthprimer\\_feb.pdf](http://www.ftthcouncil.org/UserFiles/File/ftthprimer_feb.pdf)). Telecom consultant John Widhausen Jr. puts the figure at \$1,000 per home (see [net.educause.edu/ir/library/pdf/EP00801.pdf](http://net.educause.edu/ir/library/pdf/EP00801.pdf)). These estimates of course included the 21 percent of U.S. homes that are rural, as well as the 79 percent that are urban and suburban. The latter is where the country's largest provider of FTTH service, Verizon, has focused their deployment efforts. According to Verizon, their FTTH deployment costs continue to decline. In 2006 it cost Verizon \$850 per home to deploy FTTH, down from \$1,400 in 2004. By 2010 Verizon expects the FTTH deployment costs to decline to \$700 per home (see <http://newscenter.verizon.com/kit/nxtcomm/Product-sheet-EIOS-1Q07.pdf>). Certainly the costs per home will be higher in rural areas because of the lower densities. A recent estimate by a rural Vermont FTTH company put the cost per rural home for FTTH at \$2,900 (\$1,100 to pass each rural home and \$1,800 for the actual "hook up" of the home; see "Rural FTTH 'perfectly economical,' says Muni Fiber Veteran", *Telephony Online*, April 29, 2008). Of course some rural homes are more "rural" than others, while some unserved homes lie in urbanized clusters inside rural areas. It is possible that some of the most extreme rural homes will not see FTTH, instead being served by a high-capacity wireless solution such as LTE. Considering all of these factors, we feel that a cost estimate range of \$2,000-\$5,000 per unserved home is a reasonable and conservative value.

<sup>26</sup> This is a very rough estimate based on various financial details of other publicly funded FTTH deployments. See for example, Uptown Services, LLC, "Network Planning Study", (Greenwood, Colorado, 2002).

The question is then, how do we pay for this? Where will the \$20-\$30 billion come from? We suggest based on the analysis presented above that new broadband construction could be immediately funded via a redirection of the telephony funds that provide only “marginal” monthly support. We feel that a value of \$20 per month is a reasonable approximation of “marginal” monthly support that falls within the Act’s requirement for “reasonably comparable” rates. Thus, we propose a “phasedown” schedule of \$20 per line per month in high cost support, phased in over a 5-year period. So for lines that receive less than \$20 per month in per line support, the phasedown will be 100 percent, or 20 percent per year for 5 years. For all other lines, the final phasedown level is equal to the percentage that decreases the support by \$20 per month per line.

During the 5-year phasedown period a larger and larger pool of money will be directed to the new Broadband High Cost Fund (“BB HCF”). After the 5-year phasedown there will be approximately \$3 billion in annual funds for the BB HCF. Also, after the 5-year phasedown period, there will be approximately \$1.6 billion in annual support remaining for the “old” High Cost Fund (to provide ongoing support in the “very high cost” areas whose per line monthly support needs are above \$20).

We propose that the length of the Broadband High Cost Fund be 10 years total -- the initial 5-year phasedown followed by a 5-year further construction period. During this time, approximately \$25 billion in total funds will be reallocated from the old telephony High Cost Fund to the Broadband High Cost Fund. This amount is roughly equal to the amount we estimate it will cost to deploy next-generation broadband service to the 6 to 8 million unserved homes (given that perhaps as much as \$5 billion of the Stimulus Act funds could be used to bring broadband to unserved areas, this \$25 billion could close the gap on the unserved problem at the end of the 10-year transition period).

**MODERNIZATION REQUIRES CHANGING THE REGULATORY MODEL  
TO RECOGNIZE THE REVENUE OPPORTUNITIES BROUGHT  
BY A TRIPLE-PLAY-CAPABLE BROADBAND INFRASTRUCTURE**

The phasing down of support will of course lead to some carriers wanting or needing to raise end-user rates. Those carriers not subject to rate-regulation (such as most wireless carriers) are already free to set rates at any level, and can freely incorporate any losses in funding from the phasedown into their retail charges. However, it is likely since many of these carriers already receive above-need subsidies based on ILEC’s costs, they might simply absorb these losses and maintain rates at current levels. Similarly, the incumbents operating in the more than dozen states with no intrastate rate regulation are also already free to set rates at any level. Because these state’s decisions to end rate regulation were based on the conclusion that markets are competitive, these carriers are also unlikely to raise end-user rates.

For rate-regulated carriers (either price cap, or rate of return), there will have to be changes made to the regulated rates -- or preferably -- changes made to the entire rate regulatory model. We suggest that the old system of Part 32 accounting and Part 64 cost and revenue separations is anachronistic in a world of convergence. In fact, it is possible that the accounting system perpetuates the cross-subsidization of competitive non-rate regulated services by uncompetitive rate-regulated services -- in direct violation of Section 254(k) of the Act. We suggest that as a part of the USF modernization and transition reform, that the old accounting and regulatory structure be set aside, and replaced with a system that recognizes the total cost of an infrastructure, and the revenue earning potential of that infrastructure. In such a regulatory system, the need for future ongoing support would be reduced, as the streams of unregulated and regulated revenues more than offset the forward looking infrastructure costs.

However, if the rate regulatory and support structure is not modernized, our phasedown plan will then require some adjustment of rate schedules. For price cap incumbent carriers, either the FCC or state regulators may consider adjusting the price caps upwards proportional to the per line phasedown amounts. However, we reiterate the argument that under price cap regulation these carriers already have incentives to keep costs down to earn a healthy return absent USF support. Also, considering that the average monthly per line HCF support for incumbent price cap carriers is just \$2.16 per line (see Figure 3), there may not be a

need for regulators to make any adjustments to price caps for the majority of these supported lines. For rate-of-return carriers the Commission or state regulators will need to adjust retail rates based on the level of phasedown.

**MODERNIZING THE FUND TO SUPPORT BROADBAND IN A COST-EFFICIENT MANNER:  
THE DISTRIBUTION OF HIGH COST FUNDS FOR BROADBAND**

We now turn to the question of how to distribute the monies from the Broadband High Cost Fund. We start with the basic premise that it is not efficient to fund multiple infrastructures in high-cost areas, but that consumers in these areas must be able to enjoy the benefits of competition. Thus any infrastructure supported by the Broadband High Cost Fund must be operated under Title II open access obligations. This should not be a point of controversy, as it is unreasonable to expend taxpayer resources on establishing monopolies. Open Access is the best policy tool for creating competition in markets with high fixed costs that cannot economically support multiple facilities-based competitors. The use of open access in the rural broadband context is a vital component of ensuring that citizens in these unserved areas enjoy the same benefits of competition that are available to those who live in more competitive markets.

As a matter of policy, the use of open access in the universal service context is well established globally. For example, the Organization for Economic Cooperation and Development (OECD) recently stated in a recommendation to member states that "[g]overnments providing money to fund broadband rollouts should avoid creating new monopolies," further recommending that any publicly-funded broadband infrastructure "should be open access, meaning that access to that network is provided on non-discriminatory terms to other market participants."<sup>27</sup> The National Telecommunications Cooperative Association (NTCA) made it explicit in their April USF comments that they felt USF broadband funding should come with Title II obligations.<sup>28</sup>

In addition to mandatory open access obligations, all projects supported by the Broadband High Cost Fund must adhere to the FCC's *Broadband Policy Statement*<sup>29</sup>, and also agree to not discriminate against any type of Internet content based on its source or destination.<sup>30</sup> These fundamental consumer protections are needed to ensure that consumers of the BB HCF networks are protected from the potential abuses of last-mile market power and vertical integration in content markets. Consumers in rural America should have access to the same "open" Internet that is available to consumers in all free nations of the world.

We previously mentioned (in our cost estimate discussion) that the Broadband High Cost Fund will be technology neutral, so long as the funded service is capable of the minimum level of broadband service

<sup>27</sup> <http://www.oecd.org/dataoecd/32/58/40629032.pdf>

<sup>28</sup> "However, given that broadband should be included in the future definition of universal service... it is appropriate to reclassify and regulate broadband/high-speed Internet access service under Title II of the Act." See Comments of National Telecommunications Cooperative Association *In the Matter of High-Cost Universal Service Support and the Federal-State Joint Board on Universal Service*, Notices of Proposed Rulemakings (NPRMs), WC Docket No. 05-337, CC Docket No. 96-45, FCC 08-4 (Identical Support Rule NPRM), FCC 08-5 (Reverse Auctions NPRM), and FCC 08-22 (Federal-State Joint Board NPRM), (submitted April 17, 2008), (April 2008 NTCA Comments).

<sup>29</sup> In the Matters of *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities* (CC Docket No. 02-33); *Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services* (CC Docket No. 01-337); *Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review – Review of Computer III and ONA Safeguards and Requirements* (CC Docket Nos. 95-20, 98-10); *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities – Internet Over Cable Declaratory Ruling* (GN Docket No. 00-185); *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable* (CS Docket No. 02-52); FCC 05-151, Released September 23, 2005 ("Broadband Policy Statement").

<sup>30</sup> Specifically, this principle was detailed in the AT&T-Bell South Merger Conditions, which stated: "This commitment shall be satisfied by AT&T/BellSouth's agreement not to provide or to sell to Internet content, application, or service providers, including those affiliated with AT&T/BellSouth, any service that privileges, degrades or prioritizes any packet transmitted over AT&T/BellSouth's wireline broadband Internet access service based on its source, ownership or destination." See *AT&T Inc. and BellSouth Corporation Application for Transfer of Control*, WC Docket No. 06-74, Memorandum Opinion and Order, FCC 06-189, (released Mar. 26, 2007) (*AT&T-BellSouth Merger Order*).

quality defined as 5Mbps symmetrical, capable of scaling much higher with minimal additional cost, and with latencies no lower than that needed to enable real-time VoIP calls of superior quality. For our cost estimates we used fiber-to-the-home as our projected support technology. However, the Broadband High Cost Fund should not be limited to FTTH. All services capable of meeting the minimum quality definition -- be they wireline, fixed or mobile wireless, or any other technology -- should be considered for funding.

As to the issue of retail rates for the new USF-supported broadband services, we must recognize that currently, broadband rates are not regulated in any fashion. However, in the selection process for granting of funds (described below) we suggest that funds be awarded to those carriers willing to offer services at rates reasonable comparable to those available in urban areas. If ongoing support is needed to achieve this outcome, then that will be considered in the awarding of funds. This structure will maintain adherence to the language of Section 254(b)(3) of the Act.

We have no strong opinion as to the issue of geographic designation of service areas. We do however suggest that Census geographies such as Blocks, Block Groups or Tracts may be the appropriate geographic designation for service areas. These Census geographies are small in size, but not so small as to raise transaction costs in program design and implementation. The use of Census geographies will also enable better targeting of support, as the FCC's Form 477 data collection efforts have now transitioned to a Census-based system.<sup>31</sup>

Given that each study area should see the funding of a single infrastructure via the BB HCF, the key question is how to best determine who receives the subsidy to construct and operate that infrastructure as a common carrier. We suggest that the best method for awarding support would be via a Request For Proposal (RFP) process, and not a reverse auction. RFPs allow the funding entity to weigh alternative proposals on more dimensions than just cost (such as a FTTH proposal that also includes WiFi zones). RFPs are superior to reverse auctions, avoiding pitfalls such as collusion, setting reserve prices, and other difficult aspects of auction design. We feel that RFPs are especially superior to the reverse auction process outlined by the FCC, which seems to have a bias towards incumbent carriers. We suggest that the Commission (and not the states) is best suited to solicit and evaluate Request for Proposals (RFP) in order to determine "winning" BB HCF recipients.

In the RFP process, the Commission can deal with the issue of need for ongoing support costs. In many cases the additional revenue streams from services other than VoIP that can be offered via broadband infrastructure will generate enough revenue to cover ongoing costs (as well as a reasonable rate of return). However, an entity submitting a RFP can indicate the level of ongoing support needed -- if any -- and the Commission can take that under consideration.

In order to hold consumers harmless, we suggest that each carrier supported by the new BB HCF be required or off a basic VoIP (or other comparable technology) local service package to those who request it (and no other service such as broadband or video service), at a cost in line with a state-wide average price benchmark for POTS. This is similar to the current "carrier of last resort" (COLR) requirements. The key here is ensuring that those consumers who do not wish to (or cannot afford to) transition to broadband are held harmless in the face of fund modernization.

Our proposal is conducted under a 10-year timeframe. In the 10th year of the BB HCF, we suggest that the Commission undertake a complete forward-looking assessment of the continued need of the program. Ideally, the fund will be phased down, with monies used just to upgrade infrastructures to provide the best quality service, or to provide ongoing support to the "very high cost" areas. We would recommend that at this stage if the goal of universal availability of affordable next-generation broadband infrastructure has been met, then the fund should be phased down to a \$1.5 billion or lower annual level.

---

<sup>31</sup> *In the Matter of Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscribership Data, and Development of Data on Interconnected Voice over Internet Protocol (VoIP) Subscribership*, WC Docket No. 07-38, Report and Order, (adopted March 19, 2008) ("Data Order").



# OPEN QUESTION: THE ROLE OF MOBILE WIRELESS TELEPHONY

Our Discussion Proposal is centered on the funding of broadband infrastructure, making no preference for fixed or mobile technologies, so long as the minimum level of service definition is met. But there is a strong argument that consumers value “mobility” in addition to basic connectivity, and that this functionality should be supported by the Fund.

There is certainly no question that American consumers look at mobile voice services as an integral part of their lives, but the question remains is the Universal Service Fund the appropriate vehicle (from a legal and practical standpoint) to fund mobile service *explicitly*. In its 2008 *Recommended Decision*, the Federal-State Joint Board on Universal Service specifically recommended the Commission establish a \$1 billion annual “mobility fund” to support construction of infrastructure for voice-grade mobile wireless service. But there are several problems with the Joint Board’s proposal. First, there was no adequate definition of “mobility” in the Joint Board’s decision. This is problematic because without an explicit understanding of the meaning of “mobility” it remains unclear how to define “unserved” areas (e.g. there are “drop zones” in many areas that are considered “served” already -- should USF be used to fund the construction of a tower in front of those homes that get spotty interior service)?

Second, there is no strong evidence that mobile wireless carriers would not maintain or deploy service in current high-cost areas absent subsidy. It is possible that some carriers may choose to deploy simply to have nationwide footprint (certainly in highway corridors in rural areas).

Third, mobile rates are not regulated, and carriers are not subsidized based on their own costs. Thus it remains quite unclear that currently deployed USF-supported mobile carriers would either raise rates or abandon service areas in the absence of subsidies. Also, the question remains that under a mobility fund do we use price benchmarks based on mobile rates, and how would those be set?

Forth, it is clear from the plain language of the Act that Congress did not intend to fund duplicate infrastructures for complementary services; instead envisioning the use of portable subsidies to fund substitutable services. Currently, though perhaps 10 or more percent of households are mobile-only, the vast majority of mobile customers maintain their subscriptions to either POTS or VoIP services.

Finally, the mobility fund envisioned by the Joint Board is for the construction of *new* mobile telephony infrastructure in unserved areas. Because of the lack of an adequate definition, it is hard for us to assess the scale of such a fund. The only guidance is the statement that grants could be awarded prioritized based on “the number of residents of each state who cannot receive a strong and reliable wireless signal at their residence.”<sup>32</sup> But we do know from recent FCC data that just 0.2 percent of the total U.S. population lives in Census Blocks where mobile voice service is available from one or more providers.<sup>33</sup> In other words, only approximately 250 thousand households are located on blocks without mobile voice service availability. Also according to the same data Approximately 99.3 percent of the U.S. population living in rural counties, or 60.6 million people [of the 61 million total], have one or more different operators offering mobile telephone service in the census blocks within the rural counties in which they live.” Furthermore, according to an industry-funded study, 98 percent of the customers who living in study areas served by a subsidized wireless carrier also have service available from one or more unsubsidized wireless carriers.<sup>34</sup> Therefore the scope of the mobility problem is small.

<sup>32</sup> *Recommended Decision*, paragraph 17.

<sup>33</sup> *Implementation of Section 6002(h) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, Twelfth Report, WT Docket No. 07-71, FCC 08-28, paragraph 5 (released Feb. 4, 2008) (Twelfth Report).

<sup>34</sup> Nicholas Vantzeldede, *The Availability of Unsubscribed Wireless and Wireline Competition in Areas Receiving Universal Service Funds*, Criterion Economics, (June 13, 2007).

We suggest given these above considerations that Congress must act if it desires a mobility fund on top of a POLR fund. It is not clear that the USF is the best vehicle to achieve universal mobility. Other options like D-Block spectrum (e.g. "Frontline"<sup>35</sup>) or AWS-3 spectrum (e.g. "M2Z"<sup>36</sup>) proposals may be better suited towards achieving the goals of universal mobility.

We however want to reiterate that we do not object to supporting mobile infrastructures under the framework of our proposed broadband-only High-Cost Fund. If technologies such as WiMax, WiFi, or Long-Term-Evolution ("LTE") can achieve the basic benchmark speeds and latencies set by the reformed broadband-only High-Cost program, then they can be awarded funds. In fact, the Commission when soliciting and awarding funds can make the ability to deliver mobility a considered factor under the RFP process.

#### THE 2008 FEDERAL-STATE JOINT BOARD USF REFORM PROPOSAL: NOT BOLD ENOUGH

In January of 2008 the Federal State Joint Board on Universal Service ("Joint Board") released its *Recommended Decision* on how to reform the High-Cost Fund. We believe the Joint Board was correct in its determination that broadband meets the statutory definition of a supported service under Section 254. However, the Joint Board's proposal for the creation of three separate High-Cost Funds ("Provider of Last Resort" (telephony), "Mobility", and "Broadband" funds) does not logically square with the conclusion that broadband should be a supported service. As stated above, broadband is an infrastructure that supports telephony as an application. To support telephony in addition to broadband is redundant and goes against the principle of universal service as "evolving."

The Joint Board recommended that the "Broadband Fund" receive \$300 million in annual support -- \$300 million out of a total of nearly \$4.5 billion in annual High-Cost Fund support. The notion that broadband should only receive 6.7% of the total High-Cost fund, and that this would be adequate enough to serve the goals of Section 254 is plainly absurd. The structure of the Joint Board proposal was too timid. "Bolting on" broadband support on top of the existing High-Cost Fund is the wrong way to approach USF reform.

#### REVERSE AUCTIONS: RIGHT CONCEPT, WRONG POLICY

The concept underlying reverse auctions -- only supporting a single infrastructure -- is correct and should be pursued. But in the various reverse auction proposals presented to the Commission, the emphasis on per-line ongoing support and lack of an explicit discussion of open access are major shortcomings that perpetuate many of the "broken" features of the current USF.

We have some specific concerns with several of the tentative conclusions in the Reverse Auction Notice of Proposed Rulemaking released by the Commission in 2008. First, the requirement that bidders must already be a certified ETC shuts out any new entrants -- most notably cable companies. Second, the conclusion that wireline LEC study area should be geographic base of study area for reverse auctions is not most efficient or competitively neutral. Third, while it is encouraging that the Commission concluded that winners of a reverse auction must be capable of providing 1.5Mbps service, broadband should not be thought of as a service -- it is infrastructure. Here the Commission has it exactly backwards. Fourth, the Commission concluded reserve prices should be based on current per-line support. This is bizarre, as it may unjustly enrich wireless carriers (who receive above cost subsidies); or it could be biased against wireless carriers, depending on current cost allocation methodology (forward looking versus historical). It is also bizarre, as current per-line support is for POTS only; yet as mentioned above, reverse auction terms are for a 1.5Mbps level of Internet-capable service. Fifth, the unanswered questions in the NPRM about frequency of auction illustrate the need to focus on support on infrastructure builds, and less so on the need for ongoing support.

<sup>35</sup> *In the Matter of Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, WT Docket No. 06-150; *Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band*, PS Docket No. 06-229, Second Further Notice of Proposed Rulemaking, (released May 21, 2008).

<sup>36</sup> *In the Matter of Service Rules for Advanced Wireless Services in the 2155-2175 MHz Band*, WT 07-195, Notice of Proposed Rulemaking, (released November 14, 2007).

There is good reason to think that while reverse auctions sound good in theory, they will likely fail in practice. We are fundamentally agnostic about this issue, but feel that a more flexible approach to awarding support, such as a Request For Proposal (RFP) might be a better approach.

**THE COMMISSION AND CONGRESS SHOULD AVOID  
IMPOSING USF CONTRIBUTION BURDENS ON RESIDENTIAL BROADBAND CONNECTIONS**

We would like to strongly urge policymakers to avoid making broadband services subject to USF contributions for the foreseeable future, even if broadband services are the main recipient of USF funding. This may seem counterintuitive or unfair, but it is based on the fundamental need to further the goals of universal service. But it is important that policymakers recognize that broadband service is currently what economists call an “elastic” service, meaning that a one percent increase in price will result in a greater than one percent decrease in subscribership. Contrast this with telephony, which is an inelastic service (extremely so in the case of basic connection service; less so in the case of long distance, though in today’s era of service bundles this distinction is disappearing). Thus, because broadband is a developing market, any USF assessment, no matter how small, could likely result in a net decrease in total broadband subscribership nationwide.

Some, including former FCC Chairman Kevin Martin, have recommended a shift to a numbers-based or capacity-based USF contributions assessment (or a hybrid of the two) as opposed to the current system based on interstate revenues. We do not oppose a move to such a system, so long as basic consumer broadband service is exempt, and so long as there are exemptions for those qualifying for Lifeline/Linkup service. We would prefer a methodology that maintained the current relative burdens between businesses and consumers (such as a numbers-capacity methodology). Studies seem to indicate that a shift towards this type of assessment would not result in a substantial change in distributional burden.<sup>37</sup>

**CONGRESSIONAL ACTION WILL END THE STALEMATE AT THE COMMISSION**

Ultimately, enacting USF reform under the constraints of the 13-year old Section 254 and 214 is a challenging endeavor that need not be. The FCC’s willingness to move forward with bold reform may be tempered by the perceived inflexibility of the Act.

Congress has the ability and the duty to step in and remedy this problem. But the need for Congressional action does not preclude the FCC from acting, and should not be an excuse for enacting only moderate changes to the Fund.

**CONCLUSION**

It is plainly obvious that there are no easy solutions to correcting the problems of the Universal Service Fund. But policymakers must act judiciously, boldly and in a manner that adheres to the Act’s commitment to ensuring universal, affordable access to the most important technologies of the era -- whatever and whenever that may be.

Broadband is the dominant communications service of the 21st century. There is little doubt that the benefits of transitioning the USF to a broadband infrastructure-based system far outweigh the costs. America’s place atop the global economy for the remainder of this century requires a comprehensive policy commitment to closing our digital divide. We strongly encourage Congress and the Commission to move expeditiously to enact reforms that make open access broadband networks the centerpiece of universal service policy.

---

<sup>37</sup> “Financing Universal Telephone Service”, Congressional Budget Office, March 2005.

Mr. WEINER [Presiding]. Thank you.  
Mr. Tauke, you are recognized for 5 minutes.

#### STATEMENT OF TOM TAUKE

Mr. TAUKE. Thank you, Mr. Chairman, Ranking Member Stearns and Ranking Member Barton. We appreciate the opportunity to testify before this committee on this important issue.

We have come a long way. Just a year ago, we were spending our time talking about the need for a capital fund to cover the upfront investment costs for broadband and we were talking about the need to reform universal service in order to be able to ensure that it was focused on operational costs where necessary. We also talked about mapping in order to identify the areas of the country that were unserved so we could focus the money on the unserved areas. Well, now, a year later, the mapping legislation has been approved by the Congress, the capital funds are available through the stimulus package and we are now back to looking at the Universal Service Fund.

I think it is fair to say that there is consensus that Universal Service Fund needs to be reformed. I would offer four quick suggestions as to what you should focus on in this reform.

First, cap the fund. The bottom line is that is not that we are spending too little money. The problem is, we aren't targeting the money we spend to the right places. And so the first effort is to try to force that retargeting of money to broadband and to mobile wireless services.

Second, consumers want access not just to fixed services or wireline services, they want access to wireless services, and the Congress recognized that 10 years ago. But the bottom line is, the mechanism for reimbursing mobile wireless carriers has been, well, it is frankly a travesty. Nobody any longer steps up and defends the Identical Support Rule, which says that every wireless carrier that comes into the community gets the same amount of support as the underlying wireline carrier in that community. Nobody defends that anymore. Now the argument is over what is the new mechanism for giving support to wireless carriers. We strongly urge you to use a mechanism of reverse auctions or competitive bidding in order to enter into contracts with wireless carriers to provide service to unserved areas.

You know, today the reality of life is that we have four, five, six and in some cases more carriers receiving reimbursement to provide service to areas, areas where many carriers are providing service without subsidy. There just is no rationale for this. So some way we should use a cost-based system for all of those carriers that want to provide service. The first question is, why do we want to subsidize all of these carriers. But the second question is, what is the practical reality of trying to implement a cost-based system. A cost-based system is a can of worms. Look, on the wireline side, you have infrastructure that is devoted to a single residence, and on the wireless side, you don't have that. On the wireline side, you have an accounting system that has in place for years to identify costs associated with that infrastructure that goes to the individual household. You don't have that on the wireless side. The bottom line is, trying to impose a cost system on the wireless side is going

to be a mess. So we encourage you to take a hard look at having some kind of reverse auction or some kind of competitive bidding as you do for other government contracts when you are in essence purchasing services.

Third point, middle mile. This hasn't received much discussion, but when you look at the world of broadband, here is the reality. The cost of the last mile is high but in many cases the cost of the middle mile from what we will call the central office to the long-haul network is even greater per customer. We haven't paid much attention to this issue in the past, but as we look more closely at delivering broadband services through more rural areas, we have to look at that middle mile issue, and in my written testimony I offer some suggestions.

Finally, we should pay into the fund on the basis of numbers. Last year a broad coalition of players in this space filed with the FCC a numbers-based plan. I am not saying it is the only plan but I am saying a lot of work has been done, a lot of support has been developed from a broad coalition. It is simple, it is fair and it is workable, and therefore it is something that should be considered.

We look forward to working with you, Mr. Chairman, and all the members of the committee in your efforts to reform this important program.

[The prepared statement of Mr. Tauke follows:]

Prepared Testimony of Verizon Executive Vice President Thomas J. Tauke  
U.S. House of Representatives Committee on Energy and Commerce,  
Subcommittee on Communications, Technology, and the Internet  
"Universal Service Fund Reform"  
Thursday, March 12, 2009

Chairman Boucher, Ranking Member Stearns, and Members of the  
Committee: Thank you for the invitation to discuss reform of the Universal  
Service Fund (USF).

I think it is fair to say that consumers, the communications industry, and  
policymakers agree that modern communications networks and affordable  
communications services are: 1) a prerequisite for economic growth and  
competitiveness in all regions of the country and in communities large and small;  
and, 2) an essential platform to address major social challenges, ranging from  
environmental improvement to the delivery of quality education and health care.

In the past year we have made remarkable progress in establishing  
policies that will result in the ubiquitous deployment of wireline and wireless  
broadband networks. We are here to discuss another important piece of the  
puzzle: reforming USF. Today I'd like to discuss the progress made in  
formulating a broadband agenda for America, the need to stimulate broadband  
demand, and some specific reforms to sustain USF and direct the funds it  
collects to the real areas of need.

During the 110<sup>th</sup> Congress, policymakers, the communications industry  
and consumers were focused on the need for a broadband agenda, with a focus  
on getting broadband to unserved and underserved parts of the country. We  
discussed the need to 1) fund broadband mapping to identify unserved areas,  
and 2) create a capital fund to build the broadband infrastructure in those areas.  
We also discussed ways to reform universal service.

Today much has changed. First, Congress last year passed mapping legislation. This year, Congress, working with the Obama Administration, created the capital fund to deploy infrastructure in those areas of the country that do not have access. The stimulus package provides more than \$7 billion for investment and deployment of broadband and \$350 million for broadband mapping. So, it now appears that we have a plan to identify the holes in broadband coverage and the funding to begin filling those holes with infrastructure grants.

It is important as we think about Universal Service to put the issue in perspective. Over the past decade new technologies and robust competition have delivered a far broader variety of telecommunications services to a far greater number of Americans than at any time in our history. Consumers are seeing costs decrease for their wireline and wireless communications services. Today well over 90 percent of U.S. households can access broadband technologies. More consumers are connecting, seeing speeds increase and getting more out of the host of new services that enhance their online experiences. Thus, we have an opportunity to focus USF more precisely on those fewer areas of the United States that remain un- and underserved.

Verizon is doing its part. We continue to deploy and innovate around FiOS – America's first all-fiber, next-generation broadband network – which is available to 13 million homes and businesses. On the wireless side Verizon spent \$9.4 billion last year in the 700 MHz auction to help us deploy our fourth-generation Long Term Evolution (LTE) network, which ultimately will help bring high-speed wireless broadband to consumers across the nation, including those in some underserved regions. We are commencing our LTE testing later this year and will work as quickly as possible to roll out the service commercially. We also completed our acquisition of Alltel, which is largely a rural wireless carrier, from the private equity investors who bought it less than a year earlier. Alltel's customers are already benefitting from the acquisition in two ways – they are

now part of an 83-million-strong nationwide calling family, and by the end of this year we will upgrade Alltel's EV-DO network to higher speed Rev. A technology.

Verizon's efforts underscore our long-term commitment to offer our customers the best possible broadband networks and to spur innovation across the Internet. These efforts – and those of other companies – are also the result of forward-looking, consumer-focused policies, as well as a commitment of billions of dollars to deploy the networks that now serve as the critical infrastructure for America's economy.

While funding for broadband-infrastructure investment is important, it addresses only the supply side of the supply-demand equation. There should also be a focus on the demand for broadband services. Fewer than 60 percent of households have chosen to subscribe. Why? Access to a computer is certainly a factor. Price can also be an issue, but it is cited by only 14 percent of those who don't subscribe. In some cases the information and services offered to consumers are simply not important to them. In other instances consumers need a better understanding of the relevance of the available applications and services in their daily lives. Fortunately, government at all levels, schools, employers, health-care providers, businesses and non-profit organizations are all increasingly using broadband to interact with citizens, employees, customers, and students. Whatever we do to make the applications and services available online more attractive to each consumer will drive the demand and deployment of better broadband facilities.

One key to increasing demand, we believe, is introducing students to broadband technology and services. If we give our students broadband access and make the end-user devices available to them, and if we can develop the online educational resources, such as Thinkfinity.org (the Verizon Foundation's highly rated signature program, and a web portal for a host of educational tools for teachers, parents and students), then the demand from these new consumers



will drive deployment. The recent stimulus package takes a step in the right direction by providing funds to leverage broadband technology and thereby create demand by supporting computer labs for schools, health-care IT and virtual medical records, and smart power grids.

The Administration is quickly moving to disburse broadband mapping funds and broadband-deployment grants made available in the stimulus package, and I know we are eager to see how those funds are deployed and what needs are met. The funds provide a significant opportunity to make substantial progress in the universal deployment of broadband services by providing the capital needed to invest in broadband networks in those areas where deployment is not economically viable.

There are two tools that the National Telecommunications and Information Administration and Rural Utilities Service could use to help identify areas where broadband deployment is not occurring: state broadband maps and state technology plans, which many states have created. These necessarily should inform the federal grant-making process. Even where these formal processes have not been completed, states generally are aware of parts of their geographies that are without broadband access. Using this data from the states, the initial round of NTIA and RUS grants should be made for projects meeting at least three criteria (beyond specific projects funded in the legislation to create jobs): 1) projects that a state has identified or otherwise agreed will extend broadband service to an unserved area; 2) projects with applicants who have a successful track record of deploying and providing broadband service; and, 3) projects that use a technology that is appropriate for the area to be served. Subsequent rounds of grants could be informed by the data the FCC is collecting and analyzing through the so-called Form 477, the broadband mapping that states develop via stimulus funds, as well as other work that state and local governments undertake to develop their technology plans. This approach would facilitate the transparency needed to ensure that the funds are spent efficiently,

as well as the coordination between RUS and NTIA, so that together they get the job done.

In this new environment let's now look at a longstanding component of national telecommunications policy, the Universal Service Fund. The purpose of the fund is to ensure that all Americans have access to communications services. Verizon has supported this goal, and over time USF has succeeded. Today, most consumers have access to multiple carriers – wireline and wireless – for their communications needs.

Yet USF – especially the high-cost fund – is a program that is behind the times and badly in need of reform. It remains focused on yesteryear's technology, and attempts to fit new technologies – wireless and broadband – into a telecom framework. It does little to deploy new services – wireless and broadband – to areas that are unserved; as a result it is not meeting its fundamental objective: providing universal service. Moreover, it spends consumers' dollars very inefficiently.

We need to reform and update the Universal Service Fund to better serve rural America. In the 110<sup>th</sup> Congress, Chairman Boucher and Representative Terry proposed universal-service-reform legislation, as did Ranking Members Barton and Stearns. Both proposals provide helpful guidance in navigating the path to reform, and Verizon looks forward to working with the subcommittee on new legislation during this Congress. With that in mind, I'd like to offer several suggestions:

1. **Cap the size of the high-cost fund.** As we see it, the problem is not that we are spending too little money on universal service. The problem is that we are not spending it on the right things. It should be spent to deploy mobile wireless and broadband services to unserved areas.

## **2. Use a reverse auction to award funding to mobile wireless**

**carriers.** The current system for funding wireless carriers requires our customers and your constituents to cough up their hard-earned dollars to pay unjustifiably large subsidies to multiple carriers in many locales across the country. Consumers aren't just ensuring mobile-wireless service for their fellow citizens; they are paying multiple carriers to provide service in the same areas.

And why are all these carriers flocking to provide service in these "high-cost" areas? Because the basis for the subsidy is the cost for the incumbent wireline provider in that locale; if the wireline carrier's costs trigger a \$25 per month subsidy for each line, each mobile-wireless carrier can receive a \$25-per-month subsidy per device provided in that locale.

This system must be changed.

Verizon supports using reverse auctions or competitive bidding to distribute universal-service support to mobile-wireless carriers. We think competitive bidding is the best way to determine how much a wireless carrier really needs from the Universal Service Fund to offer service throughout a high-cost area. It will also ensure that we subsidize only one wireless carrier in an area.

Competitive bidding is not a new concept; it is the standard means by which government and businesses buy goods and services. The government uses competitive-bid contracts for many important projects where high-quality service is essential, such as development of military equipment and repair work to bridges and roads. The FCC can do the same thing in this context and ensure that any contract it signs with an auction-winning wireless provider mandates a certain level of service.

Competitive bidding will require that wireless providers expand their coverage in ways that today's system does not. To win the auction, a wireless carrier must agree to serve an entire area, not just the smaller, more densely populated locale for which the provider often receives support today. The contracted area could be a wire center or it could be an area that corresponds to the spectrum license that a wireless carrier holds. (To facilitate build-out in unserved areas, the legislation should also facilitate tower-siting.)

Some suggest that perhaps a better approach than using competitive bidding to determine universal-service support would be to base it on a wireless carrier's costs. We disagree. It is difficult – and always contentious – to identify a company's "costs", and to make judgments about which costs should "count" and which ones should not. The FCC and the courts have struggled with these issues for a long time. Unlike incumbent carriers, wireless providers have never been subject to traditional cost and rate regulation, and it will be a challenge to determine costs. For example, in a world where multiple carriers receive a subsidy, will a carrier with only three customers in a given area be able to divide its cost of service by three and receive a subsidy based on its per customer cost? Will the cost of spectrum be included, and how will that cost be determined? Bottom line: basing USF for wireless carriers on cost will open a can of worms.

More important, universal service should encourage efficient providers. We need reform that breaks the link between funding levels and costs in order to ensure that universal service doesn't reward companies for high costs. Competitive bidding forces providers to evaluate their own business models and network capabilities, and to make their own judgment about what amount of support is necessary. If that amount is not competitive, the carrier will not win the support.

3. **Provide support for the "middle mile."** We urge you to consider a separate, temporary subsidy program that would promote broadband deployment

by supporting the “middle mile” transport costs some broadband providers face in high-cost areas.

Broadband Internet-service providers in rural areas need transport services to carry their customers’ Internet traffic to and from long-haul networks that connect them to the Internet. Some have referred to those transport services as the “middle mile” to distinguish them from the “last mile” connections to end-users. A broadband Internet provider serving a rural part of a state will, in most cases, have to transport its Internet traffic over a greater distance than a broadband provider serving a city in the same state. In many states, rural providers have met the demand for middle-mile transport services by constructing their own fiber-optic transport networks, often through a consortium. In some rural high-cost areas, however, the cost of the additional transport mileage is high enough to impinge on a rural broadband provider’s ability to offer services in those areas.

To address these additional mileage costs, Congress could direct the FCC to create a program through the Universal Service Fund that would offset some of the transport-mileage costs in these rural areas. This program should fall within the overall cap on the high-cost fund and should itself be capped at a set amount. Any support also should be available for a fixed duration sufficient to provide recipients an opportunity to build a customer base, add new services, form a consortium or otherwise cover the costs of the transport. The program should also be technology neutral so that we fund the most efficient technology in that area.

**4. Eliminate state-wide averaging.** Today, the high-cost fund supports rural wireline carriers based on their embedded costs. Non-rural companies serving rural areas, however, receive support based on a cost model that averages a company’s costs across a state. In certain states, this creates

serious inequities among carriers. We need a better way of providing support to these carriers.

Chairman Boucher's bill would replace this cost model with a system that is based on a company's costs in a wire center. An appropriately designed wire-center approach is a good place to start and may make sense so long as resulting increases in the fund are offset by reductions elsewhere.

**5. Base USF contributions on phone numbers.** There is widespread agreement in the industry that the current contribution methodology, which assesses interstate and international telecommunications-service revenues, is badly broken. As a result, in 2008 the universal service contribution factor (which determines the universal service fee consumers pay) climbed to over 11 percent, undermining the very goals USF is supposed to achieve.

The current revenues-based contribution system is outdated. It was designed for a world where phone companies offered customers separate local and long distance services. Today, consumers buy from a variety of providers "all distance" bundled offerings which often include video, voice, and data for one price. To report revenues, providers must make difficult distinctions between what portion of their revenues is "interstate" or "intrastate" or "telecommunications" or "information services." These complexities get worse as companies roll out more advanced services like IP and broadband. As a result, companies that compete with each other for the same customers pay into the fund in different ways, skewing the competitive landscape.

The best solution is to adopt a more stable, equitable and simple contribution system that consumers can more easily understand: a collection system based on telephone numbers, in which a company would contribute to the Universal Service Fund based on its assessable telephone numbers. This would stabilize the contribution base because the "number of numbers" is

growing. It is also better for consumers because it puts more of the contribution obligation on business services and because the amount of the surcharge that appears on consumers' bills will not vary from month to month. Finally, a numbers-based system will be much more transparent and easier for the FCC and Universal Service Administrative Company to audit.

Under this system there is no need to directly assess broadband services, since these services would contribute to the extent they use phone numbers. Today, companies do not contribute to the fund based on revenues from broadband services, and it is important to continue this policy going forward. Levying an additional surcharge on broadband services could dampen demand and would be inconsistent with the Administration's efforts to increase broadband demand and penetration. In addition, appropriate adjustments should be made for certain wireless family-share and pre-pay plans to ensure equity.

**6. Give the FCC a deadline to complete intercarrier-compensation reform.** At the same time that we update universal service, we need to change the intercarrier-compensation system. Intercarrier-compensation payments are the charges that companies pay each other when traffic is sent to or received from the traditional phone network.

Nearly everyone in the industry recognizes that the current intercarrier-compensation system is antiquated and broken. It is based on the idea that there are meaningful distinctions between interstate and intrastate services and local and long distance services. As with USF contributions, the distinctions underlying the intercarrier-compensation system no longer exist and should no longer drive policy.

The high charges that some carriers impose for terminating traffic increase the costs of deploying services in rural and high-cost areas and discourage competitors that want to provide such new and advanced services as Voice over

IP. These high rates are not sustainable as the market evolves and as the industry increasingly relies on technologies that do not depend on the traditional phone network.

The FCC should mandate a brief transition to a single, low, uniform rate when companies terminate traffic. Carriers that have to lower their access rates as a result of such reform should have the opportunity to recover these lost revenues from their end-users. To the extent that the permitted end-user-rate rebalancing does not give a LEC the opportunity to recover its access shift, the LEC should recover the remaining amount from a new mechanism within the Universal Service Fund. Over time, that amount should decline to reflect the decline in access-charge revenues now occurring in the marketplace. I note that the bill sponsored by Chairman Boucher and Representative Terry specifically allows such changes to the USF.

The FCC is ready to act on intercarrier-compensation reform. Last year the industry spent months briefing these issues and engaging in a productive and meaningful dialogue on reform. Congress should provide the FCC with a deadline to reform the intercarrier-compensation system.

Verizon believes that the reforms we have proposed will help create a Universal Service Fund that is sustainable in this new communications marketplace, meets the needs of consumers in high-cost areas, and provides carriers with the proper incentives to invest and innovate so that all of our citizens can participate in the broadband world we are building. We look forward to working with the Committee and the FCC to meet these challenges.

Thank you.



Mr. BOUCHER. Thank you very much, Mr. Tauke.  
Mr. Gerke.

#### STATEMENT OF TOM GERKE

Mr. GERKE. Good morning, Chairman Boucher, Ranking Member Stearns and members of the committee. Thank you for the opportunity to testify today on behalf of my employer, Embarq, a primarily rural provider of voice, Internet, video and other services.

Reforming the Federal Universal Service Fund offers an opportunity to accelerate broadband deployment to customers in unserved areas while maintaining affordable access to critical voice connectivity. Embarq commends Chairman Boucher and Congressman Terry on their introduction of H.R. 2054, the Universal Service Reform Act, which included a transition to a broadband-focused fund, a more targeted support mechanism and appropriate carrier-of-last-resort obligations, all critical elements of USF reform. We also commend Congressmen Barton and Stearns on some of the key provisions in H.R. 6356, the Universal Service Reform Accountability and Efficiency Act, which sought to more precisely direct USF support to truly high-cost areas and tie USF more directly to carrier-of-last-resort obligations.

Policymakers, stakeholders and providers are increasingly coming to the conclusion that the Universal Service Fund is ready to enhance its mission by adding a focus on expanding and supporting broadband availability to all Americans. After all, broadband is increasingly an essential service. It is important in keeping people connected, enhancing public safety, enabling education and telemedicine, and creating jobs. Of course, there are important considerations in this effort such as ensuring that the current mission of reliable, affordable voice service from a carrier of last resort is not abandoned and targeting USF support to places where the market would not otherwise deliver broadband.

Incumbent phone providers have a very specific carrier-of-last-resort mandate associated with universal service. To illustrate, we have brought a diagram today of a rural market in Goodland, Indiana. Each of the green dots here represents a household. As you can see, most of the households are clustered in a town center and that is the most economical place to serve, but as a carrier of last resort, we are required to serve all of the outlying areas as well where the cost to provide such service is much higher. In this case, costs are well over 10 times higher. The challenge here is, how to layer on and expand the availability of broadband throughout low-density areas while maintaining the voice service that is critical.

The policy of universal service was conceived to bring and maintain reliable, affordable service to places where the market forces alone would not otherwise provide it. The Universal Service Fund was created in 1996 because Congress realized that as competition emerged, service providers in high-cost rural areas would no longer be able to maintain the implicit urban-to-rural subsidies and they would need to be replaced with explicit support in the form of the Universal Service Fund. The contemplated competition has become a reality. Under today's system, universal service support has been calculated and distributed on the basis of broad statewide geo-

graphic study areas averaging together low- and high-density areas that could be literally hundreds of miles apart.

In closing, and to illustrate our concerns, let us take another look at the map of Goodland, Indiana. The average cost to serve the 452 households clustered in or near the town center is \$19 per line per month. The remaining households are dispersed throughout the outlying areas and the cost per line is \$266 per month. With facts like these, here is what can happen. First, a dense area can knock out support for an extremely remote area. This is particularly egregious if the dense area is hundreds of miles away on the other side of the State. Second, without the carrier-of-last-resort requirement, you run the risk of multiple carriers receiving unnecessary support to serve only the town center, creating duplication and waste. If you think about the situation like a donut and a hole, the answer is crystal clear: The hole will take care of itself. The purpose of section 254 has always been to serve the donut. We look forward to working with you on USF reform to accomplish just that.

[The prepared statement of Mr. Gerke follows:]



**Testimony of Thomas A. Gerke  
CEO, Embarq  
before the  
Subcommittee on Communications, Technology and the Internet  
March 12, 2009**

**High Cost Support and the Universal Service Fund**

Good morning Chairman Boucher, Ranking Member Stearns and members of the Committee. Thank you for the opportunity to testify today on issues relating to high-cost support and the Universal Service Fund. I am Tom Gerke, Chief Executive Officer of Embarq.

Embarq is primarily a rural provider of voice, Internet, video and other services with approximately 6 million customers spread across 18 states. We were created in May 2006 when Sprint Nextel spun off its Local Telephone Division into a separate and independent company. Our service territory extends from the Pacific Northwest to the Florida Everglades, and from Northern Minnesota to the plains of Texas. Additionally, we are a carrier-of-last-resort in all of our service areas, which means we provide reliable, affordable service to numerous outlying rural areas with low population density and challenging terrain, even when it is not profitable to serve those areas. On January 27, 2009, our shareholders voted to merge with another rural carrier, CenturyTel; a move we believe will create an even stronger, more stable and innovative rural voice and broadband provider serving nearly 8 million access lines in 33 states. The new company will also be considerably more rural, serving areas with lower average population densities.

Today's hearing is timely and addresses a topic that is vitally important to the economic development of rural America. Reforming the federal Universal Service Fund ("USF") offers an opportunity to accelerate broadband deployment to unserved areas while maintaining affordable access to critical voice connectivity for those people that cannot or choose not to become broadband customers. Intelligent and effective reform of the federal USF is essential to both goals. Congress, and this subcommittee in particular, have taken a strong role in overseeing USF, and we appreciate your leadership.

Embarq commends Chairman Boucher and Congressman Terry for the universal service reform legislation they introduced last year. HR 2054, the Universal Service Reform Act, introduced many important changes to USF, including a transition to a broadband-focused fund and a more targeted support mechanism that would provide funding for customers living in high-cost areas served primarily by midsize rural telecom providers. Notably, the bill also ensured that identical carrier-of-last-resort ("COLR") obligations would be applied to all USF recipients, which is essential for competitive neutrality and preserving the long-run stability of the program. Since then, numerous regulatory actions have occurred, including the imposition of the competitive eligible

telecommunications carrier (CETC) cap, the passage of an ambitious broadband stimulus package and enactment of the Broadband Data Improvement Act. We look forward to working with both members and the rest of the Committee on the next version of USF reform.

We also commend Congressmen Barton and Stearns on some key provisions in HR 6356, the Universal Service Reform, Accountability and Efficiency Act, which sought to more precisely and narrowly direct USF support to the truly high-cost areas where it is most needed, and also tie USF support more directly to the carrier-of-last-resort obligation.

We believe the fundamental policy challenges facing the federal Universal Service Fund boil down to two simple things:

- Supporting rural broadband access while still maintaining the reliable, affordable voice service that rural customers expect and depend upon, and;
- Adapting the Universal Service Fund to a competitive telecommunications market by targeting support on a granular basis to better align support with cost.

#### **Broadband and COLR (Carrier of Last Resort)**

Policymakers, stakeholders and providers are increasingly coming to the conclusion that the Universal Service Fund is ready to take on a new explicit mission: expanding and supporting broadband availability in rural America. After all, broadband is increasingly seen as an essential service, important in keeping people connected, enhancing public safety, enabling education and telemedicine, and spurring economic development. More and more, the presence of broadband in a community is a key factor every business considers when deciding where to locate facilities.

But of course, there are important questions to consider as you contemplate this new mission, such as:

- a. How to ensure that the current mission of ensuring reliable, affordable voice service from a carrier of last resort is not abandoned in the process;
- b. How to manage the cost of supporting broadband and ensure that such support is complementary to similar missions now being undertaken by the NTIA and the Rural Utilities Service, as authorized in the ARRA.
- c. How to target such support to places where the market would not otherwise deliver broadband, especially in a competitive market where broadband could come from different types of providers.

As a starting point, it's important to understand that incumbent phone providers have a very specific mandate associated with universal service. State and federal carrier-of-last-resort mandates require us to provide service to all the homes in our service territory, even where it is uneconomic to do so. This carrier of last resort mandate is generally paired with exacting service quality standards and retail rate mandates that require us to

charge similar rates in the high-cost rural areas to those in the low-cost urban and suburban areas. With few exceptions, a carrier of last resort is required to build and maintain voice service availability to all the homes in a community, even if they are receiving voice service from a competing source or foregoing it altogether.

In addition, while rural high-cost consumers are very interested in broadband availability, they continue to expect reliable voice service as well. These are the consumers least likely to have other options from cable, wireless or some other source, and not all of them actually order broadband when it is made available. In other words, the challenge is how to layer on expanding availability of broadband throughout a rural area while still maintaining the voice network that is already there.

### **Broadband Stimulus**

This mission will undoubtedly be enhanced by the far-reaching economic recovery legislation that was enacted last month, allocating \$7.2 billion to increase broadband availability and adoption through the National Telecommunications and Information Administration (NTIA) and the Rural Utilities Service (RUS), especially to the extent such support is focused on unserved areas. By providing an infusion of one-time capital costs, both agencies can expand the areas where broadband is available and bring more communities and constituents onto the network. Embarq is urging both agencies to act quickly with a sharp focus on unserved areas, an approach that would maximize both immediate job creation and the long-term economic health of those communities.

### **Adapting to competition.**

Universal service was originally conceived to bring and maintain reliable, affordable service to the places where market forces alone would not otherwise provide it. The Universal Service Fund was created in 1996 because Congress realized that as competition emerged, service providers in high cost rural areas would no longer be able to maintain implicit urban-to-rural subsidies and would need to replace those subsidies with explicit support from the Universal Service Fund. That competition is a reality today.

Unfortunately, in the case of many midsize rural providers, Universal Service support has been calculated and distributed on the basis of broad geographic "study areas" that could stretch across a carrier's entire service area for a state, averaging together cities, towns and rural areas that could be hundreds of miles away from each other. The assumption, for example, was that Embarq could offset the high cost of serving places like the Everglades by cross-subsidizing from Tallahassee or the Orlando suburbs, and as a result, no universal service support was necessary in Florida.

This policy produced an unfair result for the people who lived in those rural areas. To give you an example of how competitive our markets are, Embarq has lost 18 percent of its overall customers in just the three years since May 2006, when we spun off from Sprint Nextel. Embarq loses more than 1,000 lines each day, and the lost customers are mostly in the low-cost areas. If reliable, affordable service to homes and small businesses depends on a cross-subsidy that simply can't be sustained any more, then

those homes and businesses will be out of luck in an economy where being connected to the network has become a prerequisite to competing effectively.

At the same time, averaging USF support across a carrier's entire service area in a state results in support flowing to numerous town centers that are perfectly economical to serve – leading to arbitrage opportunities for competitive carriers to apply for universal service support in those areas too. We have seen this over the past several years in cases where five or more competitive providers were receiving support to serve the same geographic area.

All these results were at odds with the realities on the ground. The simple fact is that many town centers are economical to serve, while the need for support occurs in the outlying areas where the population density is lowest and the return on investment drops off sharply the further you move away from town. The dysfunctional result of the current system is that it “over invests” in town centers and “under invests” in the surrounding rural areas – to the detriment of those who live in those rural areas.

[See diagrams 1 and 2]

We believe the ultimate solution is to eliminate cross-subsidies and misallocation of resources by calculating and targeting universal service support on a much more granular basis, either at a wire center level or perhaps even more granular. While this sort of granular calculation and targeting may have been impractical thirteen years ago when the Universal Service Fund was first created, modern GIS mapping technologies have made it much more practical. Many of these technologies will be employed in the broadband mapping efforts initiated by Congress last year in the Broadband Data Improvement Act (and more recently funded in the American Recovery and Reinvestment Act).

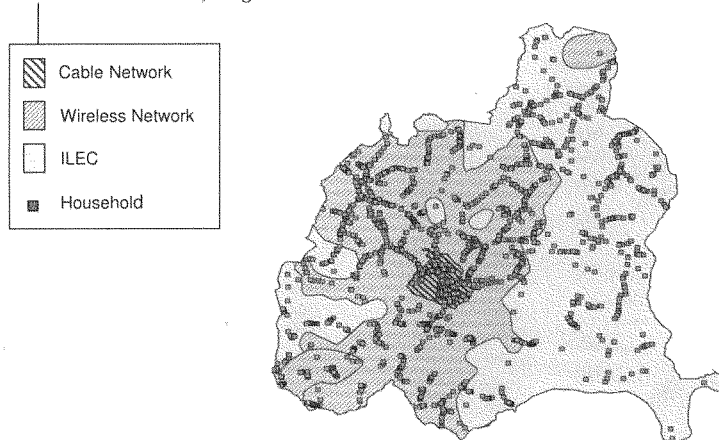
This would ultimately ensure that support was directed to the rural areas that need it most, and not to the places where competitive and incumbent providers *both* find it economical to provide service – and compete – without federal USF support. It would also mean that a rural community with similar population density would be treated fairly regardless of which state it was in, or what type of carrier it was served by.

Targeting support accurately and on a granular basis is especially important now as Congress considers a move toward a broadband-focused USF. After all, an inequitable distribution system based on statewide study areas could end up leaving many rural communities and outlying areas behind, no matter how much funding was pumped through the program, unless the calculation and distribution formulas are adjusted.

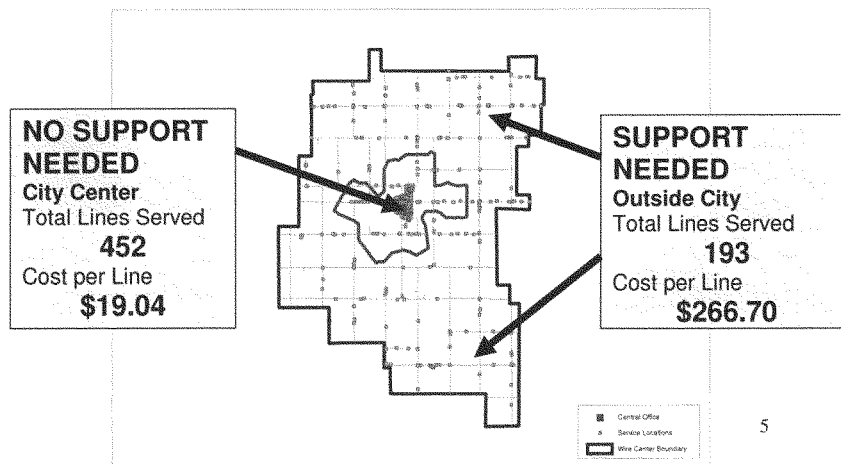
## **Conclusion**

Reforming universal service is a daunting challenge, but a great amount of groundwork has already been done by the members of this Committee, through legislation and oversight. We look forward to working with you to reform universal service in a way that is precisely targeted to the places where it is needed, achieves the twin goals of expanding broadband availability and supporting the carrier-of-last-sort mandate, while maintaining appropriate stewardship and integrity of the program.

**Diagram 1: Comparison of network coverage**  
*Brookneal, Virginia*



**Diagram 2: Targeted USF – support where it is needed:**  
*Goodland, Indiana*



Mr. BOUCHER. Thank you, Mr. Gerke.  
Mr. Hale.

#### STATEMENT OF GREGORY HALE

Mr. HALE. Thank you. Mr. Chairman, Ranking Member Stearns and subcommittee members, I thank you for the invitation to participate in today's discussion regarding the critical importance of the universal service program and how best to strengthen it for the future.

I serve as general manager of Logan Telephone Cooperative in Auburn, Kentucky, and I also currently serve as the region 3 director on the board of the National Telecommunications Cooperative Association, NTCA. My remarks today are on behalf of Logan Telephone as well as NTCA and our 579 other members that serve rural areas throughout the Nation. Organized as a cooperative, Logan Telephone's top priority has always been to provide every one of our customers, who are also our owners, with the very best telecommunications and customer service possible. We serve 5,961 customer lines across our 596-square-mile service area, which adds up to about 10 customers per square mile. Rural is different. We have approximately 1,100 small rural counterparts in our industry who together serve 50 percent of the Nation's land mass yet less than 10 percent of the population. Rural Americans throughout the markets of NTCA member are enjoying universal telephone service, access to broadband Internet services, access to advanced video services and enhanced emergency preparedness.

Now more than ever, our country's domestic, economic and personal security needs are intricately linked to our national universal service policy. American consumers and businesses are dramatically altering their communications expectations and rural communication providers continue to respond to this challenge, but the fulfillment of our mission is not without tremendous cost. Universal service plays an integral role in helping providers that are committed to serving the Nation's economically challenging markets and consumers overcome these financial challenges.

Clearly, our highest priority must center on strengthening and preserving the universal service policies. We also emphatically support proper oversight and accountability of the program yet we do not believe this is occurring as is vividly detailed in a February 12th report from USAC, which I am making available for inclusion in your hearing record. We believe it is crucial that we work together to again acknowledge the program's value in a way that restores America's communications preeminence. Our specific recommendations include the following.

One, include broadband in the definition of universal service and expand the contribution base to include all broadband service providers while retaining revenues as the basis for assessing contributions. Two, reform of universal service support should focus on providing consumers with affordable and comparable services and not be used to stimulate competition. Three, allow universal service and intercarrier compensation reform to occur simultaneously by reducing or freezing access rates and allowing carriers to recover lost access revenues through supplemental ICOS or IES support. And going along with that, we should require recipients of any new



supplemental ICOS or IES access cost recovery to voluntarily agree to Title II regulation of the broadband services and forego the retention of any excess earnings.

During the transition from the public switch telephone network to a complete IP broadband network, we must require all providers of IPPSTN traffic including interconnected VOIP traffic to pay applicable universal service access and intercarrier compensation charges. We should require tandem switching rates and special access transport rates to be cost based, strengthen the process for securing universal service eligibility, or ETC status, eliminate the Identical Support Rule and provide support based on a carrier's own costs, reject ideas to distribute support via auctions, vouchers or any other untested means, allow the program to operate as envisioned by lifting programs caps and freezes, and remove this private program from the federal budgeting process.

Advanced communications services rely upon a healthy and robust network infrastructure. The biggest issue that must be resolved to ensure the existence of such a network is cost recovery. Without adequate cost recovery, there will be no network for any communication service to reach rural consumers, be it wireline, wireless or other medium. We may well need to modify the program periodically but the key is to have the network in existence and operational in the first place. We must invest in this critical infrastructure or be left behind by the world. The words of our new President ring true when we apply it to universal service: the challenges we face are real, they are serious and they are many but the members of NTCA are ready to meet these challenges to ensure that no one is left behind. Only through your help and maintaining a strong USF program will be able to succeed.

Mr. Chairman, we are excited to have someone with your knowledge of our industry and your commitment to rural America and a position to lead and develop policies that will ensure America's broadband and communications preeminence will shine once again. I thank you for the opportunity to speak here today and I look forward to answering any questions from you or the subcommittee.

[The prepared statement of Mr. Hale follows:]



Statement by

**Gregory A. Hale**  
**General Manager**  
**Logan Telephone Cooperative, Inc.**  
**Auburn, Kentucky**

On behalf of the

National Telecommunications Cooperative Association

Before the

United States House of Representatives  
Committee on Energy and Commerce's  
Subcommittee on Communications, Technology, and the Internet

In the Matter of

"Examining Issues Related to High Cost Support and the Universal Service Fund"

March 12, 2009

NTCA – Gregory A. Hale  
March 12, 2009  
Page 2 of 25

### **Executive Summary**

Now, more than ever, our domestic, economic, and personal security needs are intricately linked to our national universal service policy. Today, in tandem with unprecedented technological advances, American consumers are dramatically altering their communications expectations both at work and at home.

Rural communications providers throughout the country continue to respond aggressively to this challenge, rapidly transforming their traditional switched voice systems into powerful and dynamic Internet protocol (IP) broadband networks. This is a natural response for these community-based providers that have a long history of taking their service responsibilities seriously. Yet, the successful fulfillment of their mission is not without tremendous cost.

Universal service plays an integral role in helping rural providers overcome these financial challenges. This industry program helps ensure that necessary cost recovery will flow to those that commit to serving the nation's economically challenging markets and consumers.

Clearly, our highest priority must center on strengthening and preserving our universal service policies in a manner that acknowledges the program's value and that simultaneously restores America's communications preeminence. Specific policy concepts that should be followed in order to accomplish a fiscally responsible and economically stimulating transition from the voice public switched telecommunications network to the Internet protocol broadband network to include the following:

- Include broadband in the definition of universal service and expand the universal service fund (USF) contribution base to include all broadband service providers and retain revenues as the basis for assessing the USF contributions;
- Affirm that universal service support should focus on providing consumers with affordable and comparable services and not used to stimulate competition;
- Allow universal service and intercarrier compensation reform to occur simultaneously by first allowing state commissions to reduce, on a company-by-company basis, intrastate

NTCA – Gregory A. Hale  
 March 12, 2009  
 Page 3 of 25

originating and terminating tariffed access rates to interstate tariffed access rate levels over a reasonable period of time. Second, by freezing interstate originating and terminating access rates in order to keep interstate access rates from increasing. And, third allow rate-of-return (RoR) carriers to recover lost access revenues not recovered in end-user rates through supplemental Interstate Common Line Support (ICLS) support and allow price-cap carriers recover lost access revenues through Interstate Access Support (IAS);

- Require recipients of any new supplemental ICLS and IAS access cost recovery to voluntarily agree to Title II regulation of their broadband services and to forgo the retention of excess earnings;
- During the transition from the PSTN to a complete IP broadband network require all Internet Protocol/Public Switched Telephone Network (IP/PSTN) traffic and specifically interconnected voice over IP (VoIP) traffic to pay applicable universal service, access, and intercarrier compensation charges;
- Require tandem switching rates and special access transport rates to be cost-based;
- strengthen the process for securing universal service eligibility (ETC status);
- eliminate the identical support rule and provide support based upon a carrier's own costs;
- reject ideas to distribute support via auctions, vouchers, or other untested means;
- allow the program to operate as envisioned by lifting program caps and freezes; and
- remove this private program from the federal budgeting process.

While there are those who continue to overlook the program's long-term and unprecedented success, such is not the case with regard to this panel's chair, Rep. Rick Boucher (D-VA) and his colleague Rep. Lee Terry (R-NE). Together they have pursued legislative strategies over the course of the prior two Congresses to ensure the program's effectiveness and long-term strength. NTCA and its members have supported their efforts in the past and expect to do so in the future.

NTCA – Gregory A. Hale  
March 12, 2009  
Page 4 of 25

**Introduction**

Thank you for the invitation to participate in today's discussion regarding the critical importance of the universal service program and how best to strengthen it for the future. For the past 6 years I have served as the General Manager of the Logan Telephone Cooperative in Auburn, Kentucky. I also currently serve as the Region 3 Director on the board of the National Telecommunications Cooperative Association (NTCA). My remarks today are on behalf of Logan Telephone, as well as NTCA and its 579 other rural community-based members that serve rural areas throughout the nation.

**Specific Company Dynamics**

Organized as a cooperative, Logan Telephone's top priority has always been to provide every one of our consumers, who are also our owners, with the very best telecommunications and customer service possible. We serve 5,961 customer lines across our 596 square mile rural service area that is entirely encompassed in one isolated region of our state. This is about 10 lines per square mile. We employ a total of 27 people and in 2008 our annual operating revenue was about 9.7 million dollars. In our industry's parlance, as a small rural provider of this size, Logan Telephone Cooperative is a Tier 3 carrier.

By comparison, let me give you a quick snapshot of how Logan Telephone compares with several of the other witnesses submitting testimony today. Embarras, as a midsized, or Tier 2 carrier, operates in 18 states, has a work force of approximately 18,000 and annual revenues of \$6 billion. Verizon, AT&T, and Qwest are classified as large, or Tier 1 carriers, and also operate in multiple states. Verizon has a workforce of nearly 224,000 and annual revenues of \$97 billion. AT&T has a workforce of 302,360 and annual revenues of more than \$124 billion. Qwest has a workforce of 33,000 and annual revenues of more than \$13 billion. Finally, U. S. Cellular is a business unit of Telephone and Data Systems, Inc., a mid-sized wireline provider

NTCA – Gregory A. Hale  
March 12, 2009  
Page 5 of 25

that owns 82 percent of the wireless entity. U.S. Cellular is the fifth-largest wireless service provider in the country, serving six million consumers in 26 states with a work force of 8,700 and has annual revenues of \$3.7 billion. Clearly with operations of this size, the priorities and objectives of these companies are generally far different from Logan's community-based approach to service.

The entrepreneurial spirit of Logan Telephone is representative of our approximately 1,100 small rural counterparts in the industry, who together serve 50% of the nation's land mass, yet less than 10% percent of the population. Like the vast majority of our rural colleagues, Logan has always been an early adopter of new technologies and services. Logan currently has 1.5 Megabit broadband service available to 100% of our service area and we are currently working on a strategic network plan to deliver even higher speed services that our members are demanding. Rural Americans throughout Logan's service area, and indeed throughout the markets of NTCA members, are enjoying universal telephone service, access to broadband Internet services, and enhanced emergency preparedness. Many NTCA members are also introducing advanced video services and, in many cases, the first true local video competition to their areas.

#### **Rural Telephony Trends**

I alluded to Logan's dramatic efforts to deploy advanced infrastructure throughout our markets. We are simply responding to the reality that today, in tandem with unprecedented technological advances; America's consumers are dramatically altering their communications expectations both at work and at home. Consequently, traditional local switched networks dedicated to voice services are rapidly evolving into Internet protocol (IP) aware, packet-enabled routing systems. This enhanced infrastructure will help ensure consumers have the capability to transmit high bandwidth data and video as well as voice communications.

NTCA – Gregory A. Hale  
March 12, 2009  
Page 6 of 25

Over the past decade, NTCA has conducted an annual Broadband/Internet Availability Survey to gauge the deployment rates of advanced services by its member companies. A few details from the association's most recent (2008) survey are extremely informative. According to the results one hundred percent of the respondents now offer broadband to some part of their customer base, compared to 58% of survey respondents who offered broadband in 2000.

The respondents indicated something we have known for years – that America's rural providers consistently practice technological neutrality in their infrastructure deployment. In other words, they use a variety of technologies to provide state-of-the-art services to their consumers. In reality, due to the geographic and economic constraints they typically face, this approach only makes good business sense. With regard to broadband capable infrastructure, the survey found that 99% of the respondents utilize digital subscriber line (DSL), 44% fiber to the home (FTTH) or fiber to the curb (FTTC) (up from 32% last year), 17% unlicensed wireless broadband, 16% licensed wireless broadband, 14% satellite and 10% cable modem. In 1999 only 29% of survey respondents offered DSL service and none offered wireless broadband.

Eighty-two percent of the 2008 survey respondents continue to offer dial-up connections to the Internet at 56 kilobits per second (kbps) for customers desiring it – and a significant percentage do so. However, overall, dial-up take rates declined as broadband take rates rose over the course of the past year. With regard to broadband speeds, ninety-one percent of respondents' customers can receive 200 to 768 kilobits per second (Kbps) service, 83% 768 kbps to 1.5 megabits per second (Mbps), 58% 1.5 Mbps to 3 Mbps, 46% 3 Mbps to 6 Mbps, and 25% greater than 6 Mbps. On average, 11% of respondents' customers subscribe to 56 kbps service, 19% subscribe to 200 kbps to 768 kbps service, 36% to 768 kbps to 1.5 Mbps, 10% to 1.5 Mbps to 3 Mbps, 11% to 3 Mbps to 6 Mbps offerings, and 5% to greater than 6 Mbps service.

NTCA – Gregory A. Hale  
March 12, 2009  
Page 7 of 25

While the typical respondent is 98 miles from their primary Internet connection, an astounding ninety-three percent face competition in the provision of advanced services from at least one other service provider. Current competitors include national Internet service providers (ISPs), satellite broadband providers, cable companies and wireless Internet service providers (WISPs).

Respondents are taking numerous marketing steps to increase broadband take rates, including free customer premise equipment installation, price promotions, bundling of services, free hardware, free introductory service and free software. Just under one-half of respondents find it difficult to compete with price promotions offered by competitors.

#### **Moderating Competitive Neutrality Based Deregulation**

With that in mind let's turn to the specific focus of this discussion -- why we believe universal service program modifications are necessary and what they should include. It is instructive to point out that latching onto a somewhat vague reference within the Telecommunications Act of 1996 regarding explicit versus implicit cost recovery mechanisms, the FCC has subsequently been engaged in a 13 year crusade in the name of competition, deregulation, and overall competitive neutrality. In this movement's wake lies a critically injured universal service system, a dysfunctional intercarrier compensation system, and a disjointed and confusing structure of consumer rates.

The universal service system has unnecessarily hemorrhaged millions of precious support dollars to competitive providers, such as U. S. Cellular, that policymakers are unwilling to force to live by the same high carrier of last resort standards the incumbent sector has always had to meet. The intercarrier compensation system has been manipulated, arbitrated and rendered virtually ineffective by the industry's giants, such as AT&T, Verizon, and Qwest, and other competitors and emerging technologies. And finally, the consumer rate structure for local service has rapidly



NTCA – Gregory A. Hale  
March 12, 2009  
Page 8 of 25

inflated, again due mostly to the fixation of the industry's giants and policymakers alike to make all costs explicit and attempt to instill so-called competitive neutrality into the marketplace. It is time that we all acknowledged these actions for what they are not, which is to say that they are definitely not in the public interest.

The net effect of these dismal and misguided initiatives has been the emergence of a business operating environment of extreme uncertainty, in which rural providers have little assurance of cost recovery. In conjunction with the economic crisis our nation already faces, it is extremely difficult if not impossible to make long-term deployment decisions let alone to expect to find the credit resources to help roll out such investment. It is extremely disconcerting to see these formerly strong foundations of cost recovery beginning to crack and crumble toward dilapidation. Policymakers, as well as those in the industry that are not natural allies of these programs, have simply got to come to the realization that these structures are necessary, that they require maintenance, and that they cannot be modified or bypassed or otherwise ignored without resulting in a collapse of the nationwide ubiquitous communications network we have worked decades to construct.

#### **Rural Telephony Cost Recovery**

While there are often a number of factors that can stymie the deployment of high bandwidth rich fiber, such as regulatory uncertainty, long loops, low customer demand, and obtaining appropriate equipment, cost remains the primary obstacle. Truly the cost factor cannot be understated in rural provider scenarios as they have neither the corporate nor the consumer base economies of scale and scope that larger carriers would enjoy. This is why adequate and stable cost recovery is so critical to rural providers.

Cost recovery for rural communications providers generally consists of three primary revenue streams, and for the most part each one, on average, accounts for approximately one third of the

NTCA – Gregory A. Hale  
March 12, 2009  
Page 9 of 25

provider's revenues. They are: 1) direct payments from customers, 2) intercarrier compensation or payments from other carriers, and 3) universal service support. These interwoven elements are dependent upon one another to the degree that if any one is modified, the others are necessarily impacted as well.

Today, this entire cost recovery structure is under siege. The reasons for this are varied, but for the most part they stem from two root causes. The first has been the zealous efforts of policymakers and public entities alike to effectuate absolute competition and deregulation throughout the telecommunications market place. The second has been the simultaneous unprecedented explosion of technological advances that helped to at least give the perception that competition, deregulation, and universal service can coexist.

#### **Universal Service And Intercarrier Compensation Reform Simultaneously**

It is obvious that with our cost recovery system under such immense pressure that we need to repair each of this structure's elements – sooner rather than later. Yet, make no mistake that whether done through legislation, regulation, or a combination of the two, universal service and intercarrier compensation reform must be done simultaneously. This is because any dramatic shifts in cost recovery could have a devastating impact on rural consumers and their communications providers. NTCA has filed an extensive universal service and intercarrier compensation reform proposal with the Federal Communications Commission (FCC). For the purposes of this inquiry we only draw your attention to the elements of our plan that directly affect the universal service program or that otherwise have some sort of direct connection to our discussion today.

Policymakers have consistently recognized the necessity of providing rate-of-return (RoR) providers with the opportunity to secure reasonable cost recovery that includes a practical return

NTCA – Gregory A. Hale  
March 12, 2009  
Page 10 of 25

on investment. They have likewise recognized the unique characteristics of rural RoR carriers and the challenges they face in providing quality service to their rural consumers. And finally, they have recognized that RoR regulation operating in tandem with universal service has worked well, not only for providing quality service at reasonable rates, but also for encouraging the deployment of broadband in rural areas.

In this regard, NTCA continues to urge federal policy makers to create a restructure mechanism (RM) that would reside under the purview of the universal service system and operate in conjunction with its interstate common line support (ICLS) and interstate access support (ICS) mechanisms. The purpose of the RM would be to allow providers to recover essential costs that might otherwise be lost as a result of policy changes to the intercarrier compensation element of their cost recovery structure. Under the NTCA plan, RoR providers would recover these supplemental amounts through the ICLS and price-cap carriers would recover such amounts via the ICS. Consistent with RoR regulation, the RM calculation must produce ICLS support levels that ensure providers are able to successfully earn authorized, modest rates of return on total regulated operations, notwithstanding reductions in access rates, losses in access lines, and/or decreases in demand minutes.

We also call for these supplemental amounts to be offset by any increases in the federal subscriber line charge (SLC) of up to \$1.50/month, and any increase in local end-user rates up to a federal benchmark rate of \$20/month. This will reduce the overall size of the ICLS and IAS high-cost support mechanisms because a portion of the costs of network access will be covered through SLCs and end-user local rates. The federal benchmark rate should include local residential rates, state and federal SLCs and SLC-like charges, mandatory enhanced area service (EAS) charges, and per line state universal service fund collections. SLC increases, if any,

NTCA – Gregory A. Hale  
March 12, 2009  
Page 11 of 25

should be limited to what is required for the company to reach the federal benchmark rate and the overall SLC cap.

#### **The Universal Service Broadband Orientation**

Today there is widespread agreement that our national universal policy should embrace broadband and advanced services. Policymakers and the public alike agree that it makes no sense to maintain or craft communications related programs that are tied solely to voice services when we are operating in an era that is so dependent on data, video, and mobile capabilities.

The chair of this subcommittee, in addition to the three sitting FCC commissioners, all agree that broadband should be included in the definition of universal service. NTCA has previously urged the FCC to establish a broadband universal service policy. We have suggested that such a policy adequately consider the financial burdens that confront small, rural providers that strive to provide their consumers with advanced services. We have asked that such a policy ensure rural consumers have access to advanced services that are comparable in price and scope to those available anywhere else in the nation. We have requested that the FCC fully explore all the potential benefits, difficulties, risks and rewards associated with first defining “broadband” and then to determine how best to ensure this is a definition that can and will evolve over time.

It is important to reiterate that in the meantime, rural carriers have aggressively been deploying broadband. The Rural Utilities Service has already provided broadband specific financing of over \$6.3 billion and through the years has also provided many more billions that have indirectly helped deploy broadband capable infrastructure. Likewise, private financiers CoBank and RTFC have pumped several billion dollars each into the deployment of advanced communications infrastructure. And most recently Congress and the President have provided an additional \$7.2 billion for this purpose via the RUS (\$2.5 billion) and NTIA (\$4.7 billion) broadband financing

NTCA – Gregory A. Hale  
March 12, 2009  
Page 12 of 25

provisions of the American Recovery and Reinvestment Act of 2009. While a portion of these latest appropriations will arrive in the form of grants, for the typical loans, universal service support is still an essential ingredient in the providers' formula to successfully repay those loans. That is why it is so critical that we move quickly to formally associate the universal service program with the deployment of broadband and advanced services.

#### **Limit Over Earnings**

In conjunction with the Restructuring Mechanism (RM) discussed earlier, NTCA and its members have also agreed to take a dramatic step in proving to the world that their use of universal service funds is entirely in the public interest. Under this plan, RoR carriers, as well as price cap carriers seeking supplemental universal service support under the RM would voluntarily agree to have their broadband services regulated under Title II of the Communications Act and also allow their total company regulated Title II costs, revenues, and earnings to be considered as part of the determination in arriving at their future broadband universal service support levels.

It's been noted previously that policymakers, as well as the public at large, are asking the industry to deploy a nationwide ubiquitous broadband network. Rural providers are attempting to do their part in the rural high-cost areas they serve. These providers should neither be expected nor required to commit resources without a reasonable expectation of a return on their investment. Likewise, the FCC, Congress, and the American public are entitled to know that federal universal service dollars are being used prudently and for the specific purpose they were provided. The proposal we offer here accomplishes both of these objectives, ensuring that providers only receive supplemental support to the extent necessary to recover all reasonable regulated costs. In other words, carriers agreeing to this approach would be signaling to the

NTCA – Gregory A. Hale  
March 12, 2009  
Page 13 of 25

world that they are not overearning at the expense of the universal service system and its limited pool of resources.

#### **Ensuring Stable Network Transitions**

In the midst of this discussion of moving from a voice to a broadband oriented infrastructure is something called voice over Internet protocol (VoIP) service, that is a direct substitute for traditional voice telephone service. VoIP calls that utilize the Public Switched Telephone Network (PSTN) are called interconnected VoIP calls. To the extent interconnected VoIP calls utilize the PSTN; they should be treated like any other telephone call. Thus, the logical conclusion of policymakers must be to take specific action to require that all IP/PSTN providers, and specifically interconnected VoIP providers, pay applicable universal service charges, terminating interstate access rates, terminating intrastate access rates, and reciprocal compensation rates, until such time as there is no longer an functional PSTN and these or similar cost recovery fees are connected with the replacement network.

The reason this is so critical is that without such an immediate and clear directive, it is conceivable that carriers like AT&T, Verizon, and Qwest and others with extensive interexchange (long-distance) operations will immediately take advantage of this loophole. They could easily and readily use this loophole to classify all of their respective voice traffic as interconnected VoIP and by extension begin refusing to pay access charges.

Presently, our industry already experiences great difficulty collecting legitimate revenues due to access and intercarrier compensation arbitrage. In addition to this we confront extreme challenges with regard to so-called "phantom traffic" which is not billable either by design or accident. The chair of this subcommittee is well aware of all of these forms of arbitrage and has been associated with negotiations and actions to stem them in the past. We simply remind his colleagues that for the reasons just outlined, it is imperative that we have definitive action on these items, and sooner rather than later.

NTCA – Gregory A. Hale  
 March 12, 2009  
 Page 14 of 25

In addition, any comprehensive USF and IC reform should address tandem-switching rates. Congress and the FCC should establish cost-based rates for these services. The volume of minutes traversing a tandem switch is much higher than that of a local central office switch, therefore it would be reasonable to expect that the cost for providing these services would be lower than the cost of local switching. Reducing price cap carrier tandem transiting rates to cost-based rates would provide further savings for IXCs, VoIP providers, and consumers. Cost-based tandem-switching rates for AT&T, Verizon, and Qwest will assure reasonable access to these bottleneck facilities of the nation's largest carriers.

Furthermore, Congress should require all large, vertically-integrated communications carriers, such as AT&T, Verizon, and Qwest to provide non-discriminatory, cost-based special access transport services needed to reach the Internet backbone. Increasing broadband demand means that carriers must increase their transport capacity to the Internet backbone. When these carriers must purchase special access services at above cost rates, customers eventually will see these higher costs included in their broadband rates. These costs, as well as the middle mile transport<sup>1</sup> and the Internet backbone itself are significant cost factors in providing rural broadband service and must be addressed in any comprehensive reform.<sup>2</sup>

To achieve and maintain the goal of universal affordable broadband service for all Americans, the Congress and the FCC should regulate the terms, conditions and pricing of Internet backbone services, including special access transport needed to reach the Internet backbone, to ensure that large, vertically-integrated Internet backbone providers do not abuse their market power by imposing unfair and discriminatory pricing on small, rural communications carriers

<sup>1</sup> National Exchange Carrier Association (NECA), *Middle Mile Broadband Cost Study*, October 2001. NECA's findings were dire—concluding that high-speed Internet service is uneconomic in many rural areas. NECA further found that increased IP traffic will exacerbate, rather than ameliorate, the problem, as existing revenue shortfalls are multiplied as the scale of operations increases. For example, the study shows revenue shortfalls at \$9.7 million per year at a 0.5% penetration rate, growing to \$33.6 million per year at a 5% penetration rate, \$49.8 million at a 10% penetration rate, and \$63.8 million per year at a 15% penetration rate. NECA's sobering conclusion: "high-speed Internet service may not be sustainable in many rural areas based on pure economics. See *NECA Middle Mile Cost Study Executive Summary*, [www.neca.org/source/NECA\\_Publications\\_1154.asp](http://www.neca.org/source/NECA_Publications_1154.asp).

<sup>2</sup> Special access transport includes, among other services, packet-switched broadband services, optical transmission services (e.g., frame relay, ATM, LAN, Ethernet, video-transmission, optical network, wave-based, etc.), TDM-based services (e.g., DS-1, DS-3, etc.), and other future transport services to reach the Internet backbone.

NTCA – Gregory A. Hale  
March 12, 2009  
Page 15 of 25

providing retail high-speed Internet access service in rural, insular and high-cost areas of the United States. The FCC has already adopted some of these conditions as part of the FCC's approval of the AT&T/BellSouth merger.<sup>3</sup> NTCA urges Congress and the FCC to broaden these conditions in the future.

#### **Strengthening ETC Designations**

But let us refocus more specifically on universal service. Earlier I alluded to the fact of how policymakers, in the name of competitive neutrality and for expediency sake, have mostly forgone their statutory responsibility to ensure the universal service program operates in the overall public interest. Truly this all begins with the responsible granting of eligible telecommunications carrier (ETC) or universal service eligible status to any given provider. Under the parameters of the statute and related regulations, the public utility bodies of the individual states hold the responsibility to make ETC determinations. However, in situations where such authority does not exist, or it is in fact abdicated, the responsibility of granting ETC determinations falls to the FCC.

From the beginning, it has been the observation of NTCA and its members that the states, as well as the FCC, have largely failed to carry out this task from a clear public interest perspective. Generally ETC decision making has been biased toward establishing a so-called competitively neutral landscape. This has routinely been to the advantage of competitors who target support rich market pockets and the states where these dollars are flowing. It has been to the detriment of incumbents who have carrier of last resort obligations and ultimately consumers who ultimately shoulder the cost of these new amounts that begin flowing through the universal service program.

---

<sup>3</sup> *In the Matter of A&T and BellSouth Corporation Application for Transfer and Control*, Order on Reconsideration, Appendix, Page 5, WC Docket No. 06-74, (rel. March 26, 2007).



NTCA – Gregory A. Hale  
March 12, 2009  
Page 16 of 25

**Eliminating the Identical Support Rule**

This problem has been extremely exacerbated by the FCC's longstanding arcane and nonsensical "identical support rule" which again all in the name of competitive neutrality, allows a competitor in a given market to receive support based on the incumbent's imbedded costs – even though the competitor's costs are usually far less because they have not been required to serve customers throughout the market area as incumbents must do. Perhaps the most vexing aspect of this rule is how it motivates competitors like U. S. Cellular to zero in on markets where there is the most money rather than markets where there is the most need.

This happens because without a requirement to serve the entire market area, and with a rule that says competitors will receive support based on the incumbent's costs, competitors target markets where universal service support is high because rural incumbents have been working hard to deploy services. Meanwhile the same competitors totally overlook the rural markets of the large carriers where deployment has typically not been widespread and where for this and other reasons universal service dollars are not flowing and thus would not flow under the identical support rule. Obviously this conundrum is not in the public interest and we are pleased to know your prior legislative initiatives have proposed the elimination of the identical support rule. We look forward to working with you to achieve its eventual elimination.

**Expanding the Assessment base**

If broadband services are included in the definition of universal service, it is only logical that contributions be based on information services as well as telecommunications services. NTCA has previously urged policymakers to expand the pool of universal service contributors to include all cable, wireline, wireless, electric, and satellite broadband Internet access providers, all voice substitute services, and all special access service providers. Section 254(d) specifically provides the FCC with permissive authority to require any provider of interstate

NTCA – Gregory A. Hale  
March 12, 2009  
Page 17 of 25

“telecommunications” to contribute to universal service. Requiring all broadband service providers and all voice substitute providers to contribute will provide sufficient universal service collections and create long-term stability in the USF contribution methodology.

The regulatory classification of cable and wireline broadband Internet access services as an information service does not preclude the FCC from requiring all providers of broadband Internet access service and all providers of voice substitute services to contribute toward universal service based on the revenues derived from these services. The underlying transmission component of all broadband Internet access services is “telecommunications” as defined by the Communications Act.

Sustaining a robust universal service program based on contributions from only a narrow class of carriers and services is impossible and certainly not in the overall public interest. If contributions are limited to a subset of services, the pricing differential between services that support the network and those that receive a “free ride” will cause services to migrate away from the services that support the network. Eventually, the network cannot be sustained in high-cost rural areas because the funding source will have disappeared. This is a classic example of the sort of non-competitively neutral environment the FCC has so often expressed concerns over yet to date the agency has failed to act to preclude such a situation from emerging.

Policies must also keep pace with how communications providers substitute traditional circuit-switched telecommunications services with IP facilities and technologies. The base should be uniform across all providers of facilities-based, broadband information services, regardless of the technology used. Only a contribution methodology that is inclusive of all technologies can achieve the Communications Act’s requirements that universal service support mechanisms be equitable and nondiscriminatory.

NTCA – Gregory A. Hale  
March 12, 2009  
Page 18 of 25

Likewise, we believe the contributions assessment methodology must be forward looking. Since AT&T first proposed a numbers based methodology, largely to shift this responsibility away from itself and its interexchange counterparts, the FCC has repeatedly put the concept on the bargaining table even though it lacks the statutory authority to move away from the statutorily mandated revenues assessment methodology. Now, several years later, at a time when policymakers and the public alike are demanding that we migrate to a fully broadband and advanced services capable infrastructure, variations of the AT&T numbers concept continue to receive consideration, both in Congress and at the FCC, despite the concept's backward looking approach to assessing a limited segment of the overall communications industry that was originally tied to voice service addresses in the form of voice telephone service numbers. The revenues assessment methodology is known, tested, operational and superior. We should stick with it.

It is true that due to the fact that the Communications Act mandates the revenues assessment be made based on a carriers interstate and international interexchange services that the assessment factor has had to escalate to derive the necessary support flows. So, rather than moving to a numbers based system that would dwell on only one segment of the industry would it not be far more equitable to simply expand the revenues that can be assessed to be inclusive of intrastate interexchange services as well. Furthermore, if policymakers were to merely embrace the universal service modifications NTCA has proposed to the FCC and that we are reiterating here today, there would be no need to consider something as backward looking and drastic as an untested numbers proposal.

NTCA – Gregory A. Hale  
March 12, 2009  
Page 19 of 25

#### **Rejecting Unworkable Distribution Concepts**

Through the years, various policymakers that had otherwise been frustrated in their endeavors to unravel the universal service program have occasionally attempted to limit the program in others ways such as via reverse auctions, vouchers, or other untested, unnecessary, and generally unworkable means. It is instructive to note that despite their proclivity to resurrect themselves, these concepts have routinely failed to garner any widespread support. A case in point is the idea of distributing universal service support in the form of individual consumer vouchers.

Rural carriers and their allies have long recognized the fatal flaw with this concept. Vouchers would act as a consumer welfare program rather than an effective cost recovery tool that ensures advanced infrastructure and services are effectively deployed. During the Senate's consideration of the Telecommunications Act of 1996, an amendment to distribute universal service support in the form of consumer vouchers was offered by Senator McCain (R-AZ). It was summarily and soundly rejected.

Last year, your colleague on the full Energy and Commerce Committee, ranking Republican Joe Barton (R-TX) introduced universal service reform legislation that proposed a variation of this concept that also advocated the idea of reverse auctions to distribute universal service support. Like vouchers, on the surface reverse auctions have a slight sense of appeal to some who believe they may incite efficiencies. But once you dig below the surface many problems quickly emerge and multiply.

In a reverse auction, unlike a traditional auction, bidders are encouraged to bid low. Thus, in a reverse auction for universal service fund (USF) support bidders would bid for the minimum amount of support they would require to serve a particular area. All other things being equal, the idea is that the lowest bidder would win. This is not viable for USF distributions according to Dr. Dale Lehman, Director of the Executive MBA in Information and Communication Technology at Alaska Pacific University, who has written extensively on this subject. In three different papers Lehman provides substantial evidence as to why USF reverse auctions would not be workable in markets with preexisting infrastructure. He concluded that "much of the

NTCA – Gregory A. Hale  
March 12, 2009  
Page 20 of 25

theoretical appeal of reverse auctions is dissipated under the actual conditions under which USF support will be provided.”

What Dr. Lehman is referring to is the fact that the reverse auction concept leaves too much to chance for rural communities that depend on USF support for ensuring access to high-quality, affordable communications services. Reverse auctions lead to questions about stranded investment if an incumbent carrier lost an auction and would have limited ability to support their past investments in their existing infrastructure. Reverse auctions could have a chilling effect on future investments in rural communications networks because of the uncertainty of the auction process. Also, low-bidding by a carrier that would ensure success in a reverse auction could lead to insufficient universal service funding to support the current infrastructure or upgrades to the network, leaving rural consumers with inadequate communications services.

Implementing reverse auctions, vouchers or other such concepts would be a serious mistake. Were policymakers simply to follow NTCA’s blueprint for universal service modifications there would be no reason to give further consideration to such ideas.

Today’s USF distribution approach is effective and Congress and the FCC should acknowledge the success of rate-of-return regulation and the embedded-cost methodology in achieving a 95% U.S. household voice service penetration rate. NTCA believes the same level of success can be accomplished for the ubiquitous deployment of broadband by using the proven USF mechanisms without relying on the untested, risky theory of reverse auctions.

#### **Caps, Freezes, and Preserving the Underlying Network**

For well over two decades, we have observed the FCC savoring a role it has never been granted by the Congress – that of the final arbiter over all matters relating to the actual size of the universal service fund. The obsessive control the agency refuses to let go of in this regard first emerged in strong form in the late 1980s and early 1990s when large carriers began to sell vast segments of their rural exchanges to rural carriers that apply the sort of committed operational model that is so necessary to effectively serve rural high cost markets.

NTCA – Gregory A. Hale  
March 12, 2009  
Page 21 of 25

With the sell-offs building, the FCC soon concluded that this process could ultimately have the effect of increasing the flow of dollars through the universal service system. Thus the agency quickly acted to limit this potential new support flow by implementing “temporary regulations” that required purchasing companies to request and go through a formal waiver process to receive support for acquired territories. It quickly became obvious that the agency had no intention of routinely granting such requests and over time, as other pressures began to tug at the universal service program, the agency only grew more resolute in its resolve to “control program growth” despite the fact that doing so was neither in the public interest nor its prerogative to begin with.

Now, years later, and many statutory directive later, not the least of which was the Telecommunications Act of 1996 with its expanded mission for the program, our industry still finds itself the unfortunate victim of this so-called temporary cap.

Today the FCC’s cap does have a rural growth factor associated with it which was negotiated between the agency and the industry several years ago. The factor is derived via a two-part formula that takes into account the annual change in the national consumer price index (CPI) as well as access lines. Again, it was envisioned as a mechanism to allow program growth, not decline. Unfortunately, we could never have imagined how the CPI would not track inflationary costs across the board and thus not always give a representative or helpful modification to the cap. Likewise, at the time of the rural growth factor’s creation we did not foresee the level of access line disruption our industry would begin to experience just a few short years later.

Today we find ourselves in the very difficult situation where policymakers and the public are mandating dramatic and costly infrastructure upgrades to meet their bandwidth demands. Meanwhile, simultaneously, the rural growth factor is moving in the reverse direction, responding to unusual CPI factors and access line loss that is occurring throughout the industry. The problem is further exacerbated each time a new ETC designation is granted or one of our colleagues launches an aggressive new deployment initiative such as a fiber to the home upgrade.

NTCA – Gregory A. Hale  
March 12, 2009  
Page 22 of 25

Yet the need for our underlying infrastructure never evaporates. In most rural communities today, if there is no underlying local exchange infrastructure, the citizens of those communities will be left with substandard or no service at all. Most people don't stop to think about it, but our underlying wireline infrastructure is generally a key element that ensures consumers receive wireless calls. A popular misconception is that wireless phones communicate directly with one another. They do not – rather they ride for a significant portion of their trip on the wireline infrastructure. The same is true for Internet access, VoIP services, and even for video applications, and this is especially true when we are talking about the consumers that reside outside the community's municipal borders.

Mr. Chairman, your prior universal service bills had provisions that formalized the FCC's temporary cap on the high cost fund which you explained to us was in part an effort to secure support from that industry's larger carriers. To our knowledge such support has never materialized in any significant form or fashion. Indeed, worse than that, over the course of the past year or more these carriers have simultaneously dangled their carrot of support for a capped fund before you, while actively pursuing regulatory strategies that would drop access and intercarrier payments to a level of .0007 cents per minute with the residual for rural carriers to be picked up via the very fund they urged you to cap.

These sorts of disingenuous negotiations should neither be entertained nor tolerated. Furthermore, in light of the dramatic interest displayed on the part of this Congress as well as President Obama and his administration with regard to broadband and advanced infrastructure deployment, now seems exactly the wrong time to even consider capping the universal service fund. With these facts in mind, we urge you to reject the cap concept and instead take formal steps to statutorily remove the FCC's temporary cap on the program.

#### **Removing Universal Service from the Budget**

With all of these factors in mind, it seems to us that now is a logical time to again give serious consideration to doing something that should have been done long ago by formally removing the universal service system from the federal budget. Your earlier universal service packages would

NTCA – Gregory A. Hale  
March 12, 2009  
Page 23 of 25

have effectuated such an outcome and we encourage you to make that a part of any legislation you introduce this year. Prior to 1995, the universal service system was never considered a part of the federal budget because it had always involved transactions of private monies between private sector parties. The only reason it became part of the budget was because Congress allowed the Congressional Budget Office and the Office of Management and Budget to make assumptions and interpretations that the flow of support was somehow federally oriented. They made this misinterpretation based on the opinion that following the enactment of the Telecommunications Act of 1996 the statutory directives on contributions and distributions gave an implied suggestion that these were federal associated amounts.

Yet the fact of the matter is that even today, these monies are still private monies, not funds that are being appropriated from the federal Treasury. The only difference now is that the Universal Service Administrative Company that oversees the program's financial transactions is subject to FCC oversight and approval. This is another reason some have tried to make the direct federal correlation. Nevertheless, during the course of discussion and debate that has continued over whether or not to subject the program to the parameters of the federal Anti-Deficiency Act, OMB has issued a lengthy analysis and conclusion that clearly acknowledges these are not federal monies. Wouldn't it be proper to explicitly remove the program from the federal budget process? We believe so.

#### **Conclusion**

IP-enabled services and all communications services rely upon a healthy and robust network infrastructure to reach end users. The one issue that must be resolved to ensure the existence of a robust nationwide ubiquitous communications network that can support IP-enabled and other advanced services in the future is cost recovery. Without adequate cost recovery there will be no network for any communications service, including VoIP, to reach consumers be it wireline, wireless or some other medium.



NTCA – Gregory A. Hale  
March 12, 2009  
Page 24 of 25

Unfortunately there are still those that believe a central element of our industry's cost recovery formula becomes irrelevant as infrastructure deployment milestones are achieved. We must pledge to work together to eradicate this way of thinking. Such viewpoints completely ignore the reality that networks must also be maintained and upgraded. Despite technological advances, it is, and will continue to be, significantly more expensive to serve rural America even after a ubiquitous broadband network is built.

Again, all service providers and consumers benefit from a robust national network infrastructure. The current structure of cost recovery enabled us to achieve our impressive 95% national telephone penetration rate. In order to achieve those same penetration rates with broadband and whatever emerges thereafter, we may well need to modify the program periodically, but the key is to have the network in existence and operational in the first place.

I ask you to look to the future rather than sculpting rules that will only meet short term goals. In 1983 my father purchased a state of the art home computer called the Commodore 64 that had an incredible 64 thousand bytes of memory. Today's standard computers ship with over 2 billion bytes of memory. The memory requirement has doubled about every two years. Broadband is following a similar path. The 10 megabit speed of today will be the dial up service of tomorrow. We can only guess what the speed requirement will be 10 or 20 years from today. We can only imagine the applications that we will ask our networks to support. Every American citizen will require the best communications in order to productively do the jobs required to compete in the global economy. We must invest in this critical infrastructure or be left behind by the world. The words of our new president ring true when applied to Universal Service. "The challenges we face are real, they are serious and they are many." The members of NTCA are ready to meet

NTCA – Gregory A. Hale  
March 12, 2009  
Page 25 of 25

these challenges to ensure that no one is left behind. Only through your help in maintaining a strong USF program will we be able to succeed.

Mr. Chairman, we are excited to have someone with your knowledge of our industry and your commitment to rural America in a position to affect leadership and develop policies that will ensure America's broadband and communications preeminence will shine once again. Thank you for the opportunity to testify today, and I look forward to answering any questions you or your colleagues might have.

Mr. BOUCHER. Thank you Mr. Hale.  
Mr. Wallsten.

#### STATEMENT OF SCOTT WALLSTEN

Mr. WALLSTEN. Mr. Chairman and members of the committee, thank you for giving me the opportunity to testify here today.

The current Universal Service High-Cost Fund is inefficient, inequitable and growing at an alarming rate, especially because the program is funded by taxes on telecommunications services paid by all users including low-income people, most of whom get no benefit from any part of the Universal Service Fund. The program is in urgent need of reform. The good news is that we have the tools to increase build-out, increase penetration and reduce costs. We can do it by eliminating the current system and replacing it with competitive procurement.

The current high-cost mechanism is not only expensive but also discourages competition and does little to benefit consumers. A study by Gregory Roston and Bradley Wimmer, for example, concluded that completely eliminating the High-Cost Fund would decrease telephone penetration by only about one-half of 1 percent. This result is consistent with nearly every other economic study published in peer review journals. Since then the proliferation of wireless alternatives means that the effect on connections would probably be even less. The 1996 Telecommunications Act tried to address the competition problem by opening up the system to entrants called competitive eligible telecommunications carriers, or CETCs. Some contend that we can control the growth by eliminating the rule under which CETCs receive the same subsidy as the incumbents. After all, they say, most of the increase in the fund is from subsidies to competitive entrants, most of which are wireless companies that have lower costs. That is partly correct. It makes no economic sense to pay entrants with lower costs the high subsidies that incumbents currently get. But it also makes no sense to subsidize a firm's high costs when a lower cost option is available. Thus, rather than eliminating the Identical Support Rule, we should rewrite it so that all firms including the incumbent get the smallest, not the biggest, subsidy required for a firm to provide service. So, for example, if a wireless entrant can provide service in the area for only half the subsidy the incumbent receives, then all eligible carriers in the area including the incumbent should receive only that smaller subsidy.

But we can do even better than that. An efficient program would provide just enough of a subsidy to make it profitable to provide the service. The problem is, how to determine what that subsidy should be, or even whether a subsidy is really necessary. Fortunately, the government has a tried-and-true method for getting the biggest bang for its buck. When the government wants a good or service, it asks for bids and generally awards the contract to the lowest bidder, all else equal. The government uses competitive bidding for buying products as simple as paper to those as complex as weapons system. Everyone understands this concept and recognizes the importance of getting multiple bids, whether it is for work on your car or for providing services to the U.S. military in Iraq. This

every day commonsense approach is sometimes called a reverse auction.

Universal service is just another type of government procurement. In this case, the government is buying some minimum set of telecommunications services that society believes everyone should have at a specific price. The current system, however, is akin to awarding no-bid contracts that last forever. We know that no-bids contracts are more costly and less transparent than are contracts awarded in a more open and competitive manner. For that reason, we generally don't tolerate no-bid contracts yet they have become so accepted in universal service that anything else is considered radical.

But there is no reason for the no-bid perpetual-contract approach to continue. The High-Cost Fund could begin procuring universal service using the same competitive bidding approach that the government uses for almost everything else. In reverse auction for universal service, firms tell the government how much of a subsidy they would need to provide particular telecom services in particular areas. The government then chooses the firm that can provide the service for the smallest subsidy.

Reverse auctions are not a new idea. Aside from the government using them for nearly all procurement, other companies have already used this method to provide telecommunications services in rural areas. This experience, which I review in a paper forthcoming in the *Federal Communications Law Journal* and that I am submitting as part of my testimony, has important lessons. In particular, reverse auctions for universal service are feasible and typically lead to much smaller subsidies than the incumbent and beneficiaries previously said was necessary, thus using less taxpayer money to provide more services. In some cases, the auctions revealed that firms were willing to provide service with no subsidy at all, and the very worst outcome from using reverse auctions was one that ended up with the incumbents winning everything. In other words, the worst outcome from using reverse auctions in universal service was what we accept as the status quo today.

I do not, however, want to give the impression that just because reverse auctions are feasible they would be easy. The details of the auction matter a lot. For example, would you want to allow multiple winners in any given area? Allowing multiple winners would facilitate service competition but could actually increase universal service obligations at least in the short run. Another issue is how to handle the incumbent. On the one hand, the incumbent may have an advantage in an auction because it already has facilities in the area, potentially discouraging other firms from bidding. On the other hand, if the incumbent loses, could it or should it still be the carrier of last resort.

These problems, however, can be solved. Auctions for spectrum too were once widely considered impractical yet the FCC successfully implemented spectrum auctions and they are now used routinely around the world. Moving from no-bid perpetual contracts to competitive bidding for universal service provision would help bring the High-Cost Fund under control. Reducing the High-Cost Fund would in turn go a long way towards facilitating an efficient and fair universal service program.

Thank you. I look forward to answering your questions.  
[The prepared statement of Mr. Wallsten follows:]

172

**TESTIMONY OF  
SCOTT WALLSTEN, PH.D.  
VICE PRESIDENT FOR RESEARCH AND SENIOR FELLOW  
TECHNOLOGY POLICY INSTITUTE**

**BEFORE THE  
  
COMMITTEE ON ENERGY AND COMMERCE  
SUBCOMMITTEE ON COMMUNICATIONS, TECHNOLOGY, AND THE  
INTERNET  
U.S. HOUSE OF REPRESENTATIVES**

**March 12, 2009**

**Statement of Scott Wallsten, Ph.D.<sup>1</sup>**

Vice President for Research and Senior Fellow  
Technology Policy Institute

**Using Competitive Bidding to Reform the Universal Service High Cost Fund**

Before the  
Committee on Energy and Commerce, Subcommittee on Communications, Technology,  
and the Internet  
U.S. House of Representatives

March 12, 2009

Mr. Chairman and members of the committee, thank you for giving me the opportunity to testify here today.

The current universal service program high cost fund is inefficient, inequitable, and growing at an alarming rate, having increased from \$1.7 billion in 1999 to \$4.2 billion in 2007. Especially because the program is funded by taxes on telecommunications services paid by all users, including low-income people, the program is in urgent need of reform.

The good news is that we have the tools to increase buildout, increase penetration, and reduce costs. We can do it by eliminating the current system and replacing it with competitive procurement.

The current high-cost mechanism is not only expensive, but also discourages competition and does little to benefit consumers. A study by Gregory Rosston and Bradley Wimmer, for example, concluded that completely eliminating the high-cost fund would decrease telephone penetration by only about one-half of one percent.<sup>2</sup> This result is consistent with nearly every other economics study published in peer-reviewed journals. Since then, the proliferation of wireless alternatives means that the effect on connections would probably be even less.

---

<sup>1</sup> Contact information: [scott@wallsten.net](mailto:scott@wallsten.net). My testimony represents my opinions alone, and not necessarily those of any organization with which I am affiliated.

<sup>2</sup> GREGORY ROSSTON & BRADLEY WIMMER, *The 'State' of Universal Service*, 12 Information Economics and Policy, (2000).

The 1996 Telecommunications Act tried to address the competition problem by opening up the system to entrants, called competitive eligible telecommunications carriers or CETCs.

Some contend that we can control growth by eliminating the rule under which CETCs receive the same subsidy as the incumbents.<sup>3</sup> After all, they say, most of the increase in the fund is from subsidies to competitive entrants, most of which are wireless companies that have lower costs.

That's partly correct. It makes no economic sense to pay entrants with lower costs the high subsidies that incumbents currently get. But it also makes no sense to subsidize a firm's high costs when a lower-cost option is available. Thus, rather than eliminating the identical support rule we should rewrite it so that all firms—including the incumbent—get the smallest, not the biggest, subsidy required for a firm to provide service. So, for example, if a wireless entrant can provide service in the area for only half the subsidy the incumbent receives, then all eligible carriers in the area, including the incumbent, should receive only that smaller subsidy.

But we can do even better than that.

An efficient program would provide just enough of a subsidy to make it profitable to provide the service. The problem is how to determine what that subsidy should be or even whether a subsidy is really necessary.

Fortunately, the government has a tried and true method for getting the biggest bang for its buck.

When the government wants a good or a service it asks for bids and generally awards the contract to the lowest bidder, all else equal. The government uses competitive bidding for buying products as simple as paper to those as complex as weapons systems like the Joint Strike Fighter.

Everyone understands this concept and recognizes the importance of getting multiple bids, whether it's for work on your car or for providing services to the U.S. military in Iraq. This everyday common-sense approach is sometimes called a "reverse auction."

Universal service is just another type of government procurement. In this case, the government is buying some minimum set of telecommunications services that society believes everyone should have at a specific price.

The current system, however, is akin to awarding no-bid contracts that last forever. We know that no-bid contracts are more costly and less transparent than are contracts awarded in a more open and competitive manner. For that reason we generally don't tolerate no-bid contracts, yet they have become so accepted in universal service that anything else is considered radical.

---

<sup>3</sup> <http://www.ntca.org/images/stories/Documents/Advocacy/PositionPapers/2009/IssueIdenticalSupport.pdf>



But there's no reason for the no-bid perpetual contract approach to continue. The high-cost fund could begin procuring universal service using the same competitive bidding approach that the government uses for almost everything else.

In a reverse auction for universal service firms tell the government how much of a subsidy they would need to provide particular telecom services in particular areas. The government then chooses the firm that can provide the service for the smallest subsidy.

Reverse auctions are not a new idea. Aside from the U.S. government using them for nearly all procurement, other countries have already used this method to provide telecommunications services in rural areas. This experience, which I review in a paper forthcoming in the *Federal Communications Law Journal* and that I am submitting as part of my testimony, has important lessons.

In particular, reverse auctions for universal service are feasible and typically lead to much smaller subsidies than the incumbent beneficiaries previously said was necessary, thus using less taxpayer money to provide more service. In some cases the auctions revealed that firms were willing to provide service with no subsidy at all. And the worst outcome from using reverse auctions was one that ended up with the incumbents winning everything. In other words, the worst outcome from using reverse auctions in universal service was what we accept as the status quo.

I do not, however, want to give the impression that just because reverse auctions are feasible they would be easy. The details of the auction matter a lot. For example, would you want to allow multiple winners in any given area? Allowing multiple winners would facilitate service competition, but could actually increase universal service obligations, at least in the short run.

Another issue is how to handle the incumbent. On the one hand, the incumbent may have an advantage in an auction because it already has facilities in the area, potentially discouraging other firms from bidding. On the other hand, if the incumbent loses could it, or should it, still be the carrier of last resort?

These problems, however, can be solved. Auctions for spectrum, too, were once widely considered impractical. Yet, the FCC successfully implemented spectrum auctions and they are now used routinely around the world.

Moving from no-bid perpetual contracts to competitive bidding for universal service provision would help bring the high cost fund under control. Reducing the high cost fund would, in turn, go a long way towards facilitating an efficient and fair universal service program.

Thank you. I look forward to answering your questions.

# Reverse Auctions and Universal Telecommunications Service: Lessons from Global Experience

Scott Wallsten\*

I.	INTRODUCTION.....	1
II.	UNIVERSAL SERVICE IN THEORY AND IN PRACTICE.....	6
	A. <i>Rationale for Universal Service in Telecommunications</i> ....	6
	B. <i>Tax and Distribution Schemes are Inefficient</i> .....	8
	C. <i>How Much Should We Spend and Where?</i> .....	8
III.	GLOBAL EXPERIENCE WITH REVERSE AUCTIONS AND UNIVERSAL SERVICE.....	9
	A. <i>Australia</i> .....	9
	B. <i>Chile</i> .....	11
	C. <i>Colombia</i> .....	13
	D. <i>India</i> .....	14
	E. <i>Nepal</i> .....	19
	F. <i>Peru</i> .....	20
IV.	DISCUSSION AND CONCLUSION.....	21

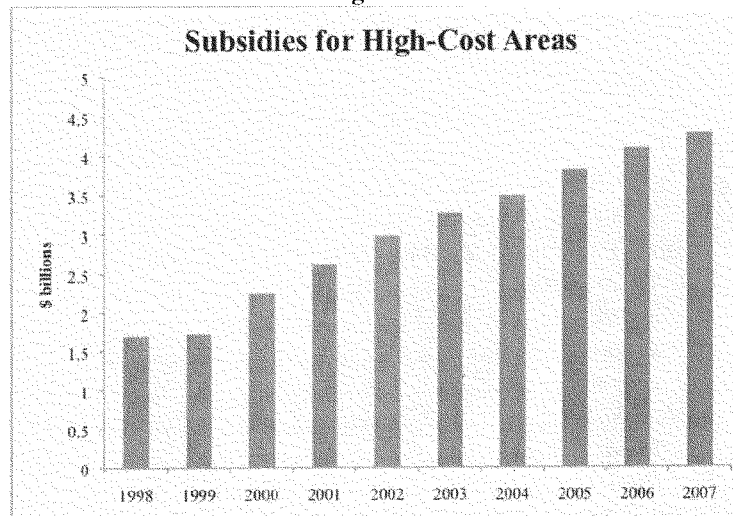
## I. INTRODUCTION

Nearly every country in the world has universal service or access regulations to try to ensure that everyone in the country can access telecommunications services at affordable prices, although

---

\* April 2008, Vice President for Research and Senior Fellow, Technology Policy Institute. scott@wallsten.net. I thank Stephanie Hausladen for excellent research assistance. All mistakes are my own. The opinions expressed here are my own and do not necessarily reflect those of any of the organizations with which I am affiliated.

“telecommunications” and “affordable” are not always easy to define. Universal service subsidies are typically used for telecommunications services in rural areas. The United States also subsidizes schools and libraries, and a small share of the subsidies go to low-income people.<sup>1</sup> U.S. annual spending on universal service has increased substantially, reaching approximately \$7 billion in 2007.<sup>2</sup> Most of this growth is the result of increases in the High Cost Fund (Figure 1). Because these subsidies have been so inefficient,<sup>3</sup> the mounting expenditures—and thus inefficiencies—are creating increasing pressures to reform the system.

Figure 1<sup>4</sup>

The FCC is considering “reverse auctions” as one possible method of controlling these expenditures.<sup>5</sup> Paul Milgrom proposed this idea more than

1. See Universal Service Administrative Company, <http://www.usac.org/default.aspx> (last visited Jan. 30, 2009).

2. See Universal Service Fund Facts -- About USF - USAC, <http://www.usac.org/about/universal-service/fund-facts/fund-facts.aspx> (last visited Jan. 30, 2009) (data reported by the Universal Service Administrative Company (USAC), a not-for-profit corporation designated as the administrator of the federal Universal Service Fund by the Federal Communications Commission).

3. See, for example, Rosston, Gregory and Bradley Wimmer, 2000, “The ‘State’ of Universal Service,” *Information Economics and Policy*, 12:3, pp. 261-283.

4. This chart was compiled based on data in mandatory, quarterly FCC filings by the USAC which project support requirements. See <http://www.usac.org/about/governance/fcc-filings/fcc-filings-archive.aspx> (last visited Jan. 30, 2009).

5. High-Cost Universal Serv. Support, *Notice of Proposed Rulemaking*, 23 F.C.C.R. 1467, paras. 15-16 (2008).

a decade ago,<sup>6</sup> and Dennis Weller developed a more specific proposal.<sup>7</sup> The general idea is for firms to bid for subsidies, and the firm with the lowest bid—that is, the firm that asks for the smallest subsidy—provides the service. While the United States has never allocated universal service subsidies in this way, it is not untested.

A reverse auction is the standard way in which the government typically procures any good or service. When the government needs to purchase something, it issues a request for proposals (RFPs) describing specifically what it wants.<sup>8</sup> Firms reply to this request, and the government picks the firm that submits the best bid. The best bid may be the lowest, but the government may also take other factors into account when making the decision, especially in the case of complex projects. While it is easier to conduct a reverse auction for simple products, the U.S. government has also used them to supply highly complex goods like weapons systems,<sup>9</sup> demonstrating that feasible auctions need not be simple.

Since a reverse auction for universal service is simply a request for proposals to supply telecommunications services, and because no-bid contracts are typically controversial,<sup>10</sup> perhaps it should be surprising not that the FCC is considering reverse auctions, but instead that reverse auctions have yet to be used for universal service.

In addition, other countries have used reverse auctions to provide universal service with some success. Their experiences demonstrate convincingly that reverse auctions can bring down subsidies substantially. Their experiences also demonstrate that, as in any auction, the rules matter a great deal. India's first attempt at reverse auctions was not successful, failing to reduce the subsidy and concluding with the incumbent as the only

---

6. See Paul Milgrom, *Procuring Universal Service: Putting Auction Theory to Work*, Lecture at the Royal Swedish Academy, Canberra (December 9, 1996), (transcript available at <http://www.market-design.com/files/milgrom-procuring-universal-service.pdf>).

7. See Dennis Weller, *Auctions for Universal Service Obligations*, 23 TELECOMM. POL'Y 645 (1999).

8. See OFFICE OF MANAGEMENT AND BUDGET, OFFICE OF FEDERAL PROCUREMENT POLICY GUIDES (2d ed. 2004), available at [http://www.whitehouse.gov/omb/procurement/index\\_guides.html](http://www.whitehouse.gov/omb/procurement/index_guides.html)

9. See, e.g., David Herszenhorn and Jeff Bailey, *In Tanker Bid, It was Boeing vs. Bold Ideas*, N.Y. TIMES, Mar. 10, 2008, available at <http://www.nytimes.com/2008/03/10/business/worldbusiness/10tanker.html>; see also UNITED STATES GOVERNMENT ACCOUNTABILITY OFFICE, JOINT STRIKE FIGHTER: MANAGEMENT OF THE TECHNOLOGY TRANSFER PROCESS (2006), available at [www.gao.gov/cgi-bin/getrpt?GAO-06-364](http://www.gao.gov/cgi-bin/getrpt?GAO-06-364).

10. The Competition in Contracting Act of 1984, Pub. L. No. 98-369, 98 Stat. 1175 (codified as amended at 41 U.S.C. § 253 (2008)), states that the government must do procurement through "full and open competitive procedures."

winner.<sup>11</sup> India persisted, and its most recent auction ended with firms bidding for no subsidy and even bidding to pay to provide service rather than to receive subsidies.<sup>12</sup>

This Article surveys global experience with reverse auctions in universal service. In particular, it discusses reverse auctions in Australia, Chile, Colombia, India, Nepal, and Peru and draws lessons from these countries for the United States. Figure 2 gives an overview of reverse auctions in these countries, as well as Guatemala and the Dominican Republic.

Most reverse auctions have been aimed at providing public telephones in developing countries.<sup>13</sup> While this type of universal service differs from universal service in the United States, these experiences have demonstrated that reverse auctions can reduce subsidies paid for universal service and that, in general, subsidies for universal service have been too high. These experiences also highlight the importance of thinking carefully about how to handle the incumbent given its inherent advantages in information and installed capacity. Overall, global experience demonstrates that if the regulator's goal is to reduce the level of subsidies or to provide information about the "right" level of subsidies, reverse auctions can be successful.

The following Section discusses the theory behind universal service and what it means in practice, while the subsequent Sections discuss these countries' experiences with reverse auctions.

---

11. *See infra* Part III.D.

12. *Id.*

13. *See infra* Part III.A. Australia is the one industrialized country that has tried the idea while India has used reverse auctions for mobile telephony in addition to public telephones. Australia Department of Communications Information Technology and the Arts. 2004. "Review of the Operation of the Universal Service Obligation and Customer Service Guarantee." Canberra.

**Figure 2: Reverse Auctions for Universal Service in Selected Countries<sup>14</sup>**

Country	Source of finance	Year	Localities served	Number bidders	Subsidy as share of max
Australia	Operator levy	2001	69 "local government areas" with 1.5m population	1	100%
Chile	Government budget	1995-1997	4,504	Between 3 - 5 in each round	42%
		1998-1999	1,412		68%
		2000	143		95%
Colombia	Operator levy & Government contribution	1999	6,865	2-7	45%
		2002	500 telecenters, 3000 sites for fixed satellite		65%
Dominican Rep.	2% operator levy	2001	500	2	89%
Guatemala	Spectrum auctions	1998	202		n/a
		1999	1,051		n/a
India	Fees on phone calls	2003	520,000	1	100%
		2003	180,000	1	100%
		2004	46,253	2	83%
		2004	66,822	2	80-85%
		2005	274 secondary switching areas	3	25-40%
		2007	250,000		70%
		2007	250,000		25%
Nepal	World Bank credit	2003	1,064	2	maximum not made public
Peru	1% operator levy	1998	213	2-5	43%
		1999	1,937		22%
		2000	2,290		47%

14. The basic table design and much of the data for Chile, Colombia, the Dominican Republic, Guatemala, and Peru are from ANDREW DYMOND & SONJA OESTMANN, INTELECON RESEARCH & CONSULTANCY LTD., RURAL TELECOMMUNICATIONS DEVELOPMENT IN A LIBERALISING ENVIRONMENT: AN UPDATE ON UNIVERSAL ACCESS FUNDS (2002), available at <http://www.inteleconresearch.com/pdf/update%20universal%20access.pdf>. Several other sources contain a table similar to DYMOND & OESTMANN without attribution. As far as I can tell, that is the original source. Much of the information on the number of bidders comes from Hank Intven & Curt Howard, *Least-Cost Subsidy Auctions for Universal Access Telecom Projects: A Practical Implementation Guide*, Presentation at EBRD, IDRC, JICA, Keio University ICT Seminar, slide 10 (August 25, 2004), available at <http://www.ictseminar.org/Doc/IntvenAug.25am.ppt>. Nepal data are from HANK INTVEN, EDGARDO SEPÚLVEDA, & CURT HOWARD, WORLD BANK, OUTPUT-BASED AID IN NEPAL: EXPANDING TELECOMMUNICATIONS SERVICE TO RURAL AREAS (2004), available at <http://www.gpoba.org/publications/approaches.asp>. I derive India data from Roger G. Noll & Scott Wallsten, *Universal Telecommunications Service in India*, in 2 INDIA POLICY FORUM 2005-06 (2006), and other sources cited in the India section of this report.

## II. UNIVERSAL SERVICE IN THEORY AND IN PRACTICE

“Universal service” refers to the idea that an infrastructure utility, such as electricity, transportation, water, or telecommunications, should be available to everyone.<sup>15</sup> Universal service policies are typically rationalized in three ways.<sup>16</sup> First, externalities might make it economically efficient to subsidize prices for those who cannot afford the service at cost.<sup>17</sup> Positive externalities imply that the total benefits from providing service to an individual exceed the benefits to an individual subscriber. If the private marginal cost of service exceeds the private marginal benefit by less than the amount of the external benefit, then some individuals will not subscribe even though the social benefit of serving them exceeds their cost of service.

Second, some services might be “merit goods”—goods and services that society believes everyone should have, regardless of whether they are willing to pay for those services.<sup>18</sup> A policy decision that certain goods and services ought to be subsidized may come from a belief that everyone should achieve a certain minimum standard of living or from a concern that individuals are unable to accurately assess the private benefits of consuming these services. If society is more concerned about consumption of the merit goods than the overall welfare of poor people, subsidies for these goods might be preferable to direct monetary transfers because people may choose to spend cash transfers on something other than the service society wants to encourage.

Finally, political factors or regional development goals may induce governments to transfer resources to rural or low-income constituents.<sup>19</sup> In countries with large rural populations, in which rural areas are generally disproportionately represented, policymakers may face a political incentive to ensure that their rural constituents have access to the same services as do urbanites.

### A. *Rationale for Universal Service in Telecommunications*

The typical economics argument defending universal telecommunications service is that network externalities result in a

---

15. This section draws heavily from joint research with Roger Noll. See Noll & Wallsten, *Universal Telecommunications Service in India*, *supra* note 14. Any opinions expressed in this paper are intended to reflect Wallsten’s opinions only.

16. See HELMUTH CREMER ET AL., ECON. DEV. INST., *THE ECONOMICS OF UNIVERSAL SERVICE: PRACTICE* (1998), available at <http://www.worldbank.org/wbi/regulation-f/pdfs/practice.pdf>; see also HELMUTH CREMER ET AL., ECON. DEV. INST., *THE ECONOMICS OF UNIVERSAL SERVICE: THEORY* (1998) available at <http://www.worldbank.org/wbi/regulation-f/pdfs/theory.pdf>

17. See CREMER, *THEORY*, *supra* note 16.

18. *Id.* at 7.

19. *Id.*

suboptimal investment. "Network externalities" occur when the benefits that a new consumer accrues from connecting (the private benefits) are less than the total benefits to society; when an additional person connects to the network, all other subscribers benefit by being able to communicate with the new subscriber. Therefore, individuals may not face a strong enough incentive to subscribe, thus requiring subsidies to induce socially optimal subscription.

This argument, however, is incomplete and therefore misleading.<sup>20</sup> First, even if the benefits to the new subscriber are less than the total benefits, the private benefit may still exceed the cost for nearly all subscribers, in which case a general subsidy of service is mostly wasted.<sup>21</sup> Second, because services become more valuable when more people are connected, the firm providing access captures some of the benefits from network externalities.<sup>22</sup> Consequently, although network externalities are external to the individual, they are not necessarily external to firms providing the service, potentially removing the need for subsidies. In other words, network externalities by themselves do not necessarily imply that without subsidies too few people would subscribe to telecommunications services.<sup>23</sup> Third, all subscribers receive an external benefit from subscriptions by others, implying that each person should subsidize the service of the other. Consequently, on average, the subsidy a subscriber receives to take service ought to be roughly equal to the amount of the subsidy that subscriber should be willing to pay to induce others to subscribe.<sup>24</sup>

Even if one disregards the point that the theoretical justification for subsidies is weak and believes that subsidies are nevertheless required, the manner in which we pay for those subsidies is inefficient. In particular, we pay for universal service subsidies by taxing other telecommunications services via cross-subsidies. Economics research provides convincing empirical evidence that the case for extensive cross-subsidization in telecommunications is weak, as discussed below.

---

20. For a more complete discussion of this issue, see CREMER, PRACTICE, *supra* note 16, and CREMER, THEORY, *supra* note 16.

21. See CREMER, PRACTICE, *supra* note 16; see also CREMER, THEORY, *supra* note 16.

22. See CREMER, PRACTICE, *supra* note 16; see also CREMER, THEORY, *supra* note 16.

23. See CREMER, PRACTICE, *supra* note 16; see also CREMER, THEORY, *supra* note 16.

24. See CREMER, PRACTICE, *supra* note 16; see also CREMER, THEORY, *supra* note 16.



*B. Tax and Distribution Schemes are Inefficient*

Cross-subsidies in telecommunications are inefficient and costly to society in large part because they tax usage which has a relatively high price elasticity of demand (e.g., long distance and mobile), in order to subsidize access, which has a very low price elasticity of demand. In other words, our system of funding universal service taxes services for which people are highly price-sensitive, causing them to change their behavior and use those services less than they otherwise would. Jerry Hausman estimated that each dollar raised in taxes on wireless services costs the economy between \$0.72 and \$1.14.<sup>25</sup> Jerry Ellig estimated that taxes on wireless services and interstate long distance to support universal service reduced economic welfare in 2002—when subsidies were lower than they are now—by nearly \$2 billion annually.<sup>26</sup>

At the same time, those taxes are used to subsidize *access*, which people are likely to purchase even when prices change. Gregory Rosston and Bradley Wimmer, for example, estimated in a detailed empirical analysis that eliminating the High-Cost Fund would reduce telephone penetration by only one-half of one percent.<sup>27</sup> That estimate is likely to be even smaller today given increased competition and lower costs. Rosston and Wimmer also point out the inequity of the universal service program, finding that eighty percent of poor households pay into the fund through taxes on telecommunications services they use and get nothing back.<sup>28</sup>

*C. How Much Should We Spend and Where?*

A key problem with universal service is deciding what subsidies are necessary and how to distribute them. In principle, universal service subsidies are necessary when it is not economic for a firm to provide service. In that case, the ideal subsidy would equal the gap between the level of investment a firm would be willing to make and the investment required to provide service.

This cost-based approach has several problems. First, our regulatory history demonstrates that it is not possible to accurately calculate the true

---

25. Jerry Hausman, *Efficiency Effects on the U.S. Economy from Wireless Taxation*, 53 NAT'L TAX J. 733, 735 (2000).

26. MAURICE MCTIGUE & JERRY ELLIG, MERCATUS CENTER, EX PARTE PUBLIC INTEREST COMMENT ON PERFORMANCE MEASURES FOR UNIVERSAL SERVICE PROGRAMS 11 (Oct. 17, 2005), available at [http://www.mercatus.org/uploadedFiles/Mercatus/Publications/MC\\_RSP\\_ExPartePIC2006-02FCCPerfMeasures\\_060126.pdf](http://www.mercatus.org/uploadedFiles/Mercatus/Publications/MC_RSP_ExPartePIC2006-02FCCPerfMeasures_060126.pdf).

27. Gregory Rosston & Bradley Wimmer, *The 'State' of Universal Service*, 12 INFO. ECON. & POL'Y 261, 272 (2000).

28. See *id.* at 276-79.

costs of providing service.<sup>29</sup> The task becomes more difficult when the provider has every incentive to make the cost of service appear high. Second, it becomes difficult to change once a firm is providing subsidized service. Potential new entrants would have to compete with a subsidized incumbent. Subsidies could be made available to those firms too, but that risks driving up the cost of the program.

Reverse auctions do not address the way in which universal service funds are collected. Instead, they focus on how those funds are distributed. When designed properly, auctions are a tool that can induce firms to reveal their best guess as to how much it would truly cost to serve an area. The next Section discusses different countries' experiences with reverse auctions.

### III. GLOBAL EXPERIENCE WITH REVERSE AUCTIONS AND UNIVERSAL SERVICE

Subsidy auctions have been used elsewhere in the world with some success. This Section investigates auctions in Australia, Chile, Colombia, India, Nepal, and Peru. In a fair bidding process with multiple bidders, firms should bid the smallest subsidy necessary for them to provide service. Global experiences reveal that auctions are feasible and that the subsidies required are generally less than incumbents had previously led policymakers to believe.

#### A. Australia

In 2000, the Australian government decided to pilot the use of reverse auctions to distribute universal service subsidies in certain areas (Figure 3).<sup>30</sup> Firms—both the incumbent and its competitors—were to bid for an \$85 million subsidy to provide standard telephone service in 2003–2004.<sup>31</sup>

---

29. See generally, Alfred Kahn, Telecom Deregulation: The Abonimable TELRIC-BS, Address Before the Manhattan Institute (Oct. 1, 2001) (transcript available at <http://www.manhattan-institute.org/html/kahn.htm>) (weighing the merits of different methods of cost calculation).

30. DEP'T OF COMM., INFO. TECH. & THE ARTS, REVIEW OF THE OPERATION OF THE UNIVERSAL SERVICE OBLIGATION AND CUSTOMER SERVICE GUARANTEE § 6.2 (2004) [hereinafter DCITA Review], available at [http://www.dbcde.gov.au/\\_data/assets/pdf\\_file/0005/10103/Review\\_of\\_the\\_Operation\\_of\\_the\\_Universal\\_Service\\_Obligation\\_and\\_Customer\\_Service\\_Guarantee.pdf](http://www.dbcde.gov.au/_data/assets/pdf_file/0005/10103/Review_of_the_Operation_of_the_Universal_Service_Obligation_and_Customer_Service_Guarantee.pdf).

31. *Id.* at § 6.5.

This subsidy previously would have been available only to Telstra, the incumbent.<sup>32</sup> Bidding was to open in July 2001.<sup>33</sup>

As it turned out, none of Telstra's competitors bid to provide service in the pilot regions.<sup>34</sup> The Australian Department of Communications Information Technology and the Arts (DCITA)<sup>35</sup> reported that the competitors explained that the subsidy was too low for them to compete with Telstra given Telstra's existing installed capacity and information asymmetry.<sup>36</sup>

DCITA noted that while the results of the pilots were disappointing in that they did not lead to competitive entry, several factors contributed to the outcome, all of which may provide useful lessons.<sup>37</sup> First, the auctions took place at the beginning of a major downturn in telecommunications markets worldwide.<sup>38</sup> It is possible that firms were especially risk-averse during this time. Second, the auctions may have revealed that the existing subsidies were not excessive.<sup>39</sup> Finally, they highlight the need to consider carefully the role of the incumbent when designing these auctions.<sup>40</sup> As discussed below, India faced similar problems with respect to its incumbent provider.

The unique position of the incumbent raises the important question of identifying the goal of a reverse auction program. In Australia, the goal was to introduce competition.<sup>41</sup> As Australia's experience shows, however, introducing competition and reducing subsidies are not necessarily consistent, at least in the short run.<sup>42</sup> As the DCITA pointed out, encouraging competition may have required it to increase its spending on universal service.<sup>43</sup>

---

32. *Id.*

33. *Id.* at § 6.2.3.

34. *Id.* at § 6.6.

35. This agency is now called the Department of Broadband, Communications and the Digital Economy.

36. DCITA Review, *supra* note 32, at § 6.6.

37. *Id.* at § 6.9.1.

38. *Id.* at § 6.9.1.

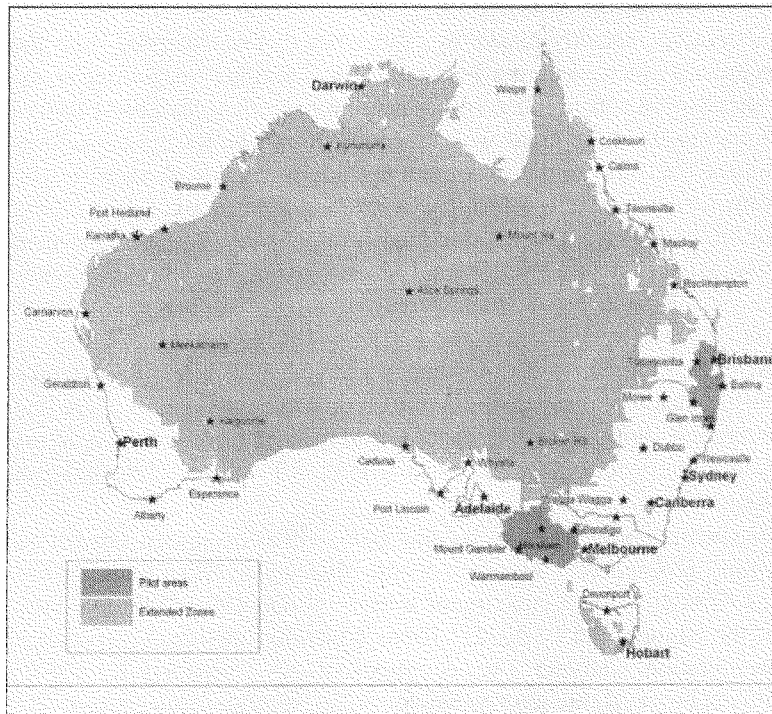
39. *Id.* at § 6.10.

40. *Id.* at §§ 6.9.2, 6.10.

41. *Id.* at § 6.2.

42. *Id.* at § 6.6.

43. *Id.*

Figure 3<sup>44</sup>

Source: TSI, *Connecting Australia*, report of the Telecommunications Service Inquiry, September 2000, p. 156

### B. Chile

Chile created its *Fondo de Desarrollo de las Telecomunicaciones* (Telecommunications Development Fund) in 1994 to provide payphones in rural and low-income urban areas.<sup>45</sup> Regional and local governments submitted requests for payphones to the regulator, who then determined a maximum allowed subsidy to make the phone commercially viable.<sup>46</sup> Any

44. DCITA Review, *supra* note 32, at 60 fig.6.1.

45. Björn Wellenius, *Closing the Gap in Access to Rural Communications: Chile 1995-2002* 5 (World Bank Discussion Paper No. 430, 2002) available at <http://rru.worldbank.org/Documents/Paperslinks/1222.pdf>

46. *Id.* at 6.

firm could bid to provide the service and the winner received a non-exclusive thirty-year license.<sup>47</sup> The resulting average subsidy was US\$3,600 per payphone, compared to the US\$10,000–US\$20,000 the government had paid previously.<sup>48</sup>

The average subsidy masks two other results that emerged from the bidding process. First, winning bids tended to be either very close to the maximum allowed subsidy or zero.<sup>49</sup> The dominant local firm bid 100% of the maximum subsidy in areas with no competitors which were close to its existing network, 90% of the maximum subsidy in areas with an emerging competitor which were close to its network, and zero in areas with strong competition.<sup>50</sup> Likewise, the satellite firm Global Village Telecom (GVT)—a Gilat Satellite Networks Ltd. subsidiary, which was a new entrant—bid 100% of the maximum in areas with no wireline network and did not bid elsewhere.<sup>51</sup>

Intelecon Research and Consultancy Ltd stated, “Chile’s fund, which has been in place for four years, did not need to use subsidies at all in 656 of the villages it supplied with telephony, and managed to cover 77% of the designated villages with only 54% of the US\$13.3 million of financing it had available.”<sup>52</sup>

The second result was that bidding competition decreased steadily as the auctions proceeded.<sup>53</sup> Figure 4 shows that the average winning bid increased from 40% of the maximum subsidy during 1995–1996 to nearly 100% of the winning bid by 2000.<sup>54</sup> Björn Wellenius attributed this change to consolidation among telecommunications providers.<sup>55</sup> Other explanations, however, are also plausible.

It is possible, for example, that the regulator-auctioned areas were expected to be more profitable initially.<sup>56</sup> In that case, firms would be willing to pay more and accept less to serve those areas and would demand higher payments for serving the less profitable areas that were auctioned later.

Another possibility is that each round of auctions provided the regulator with additional information about the true costs of providing

---

47. *Id.*

48. *Id.* at 17.

49. *Id.*

50. *Id.*

51. *Id.*

52. INTELECON, RURAL TELPHONY MARKET – STILL SMALL BUT GROWING FAST ¶ 12, <http://www.inteleconresearch.com/pages/reports-06.html> (last visited Jan. 30, 2009).

53. See Wellenius, *supra* note 47, at 18.

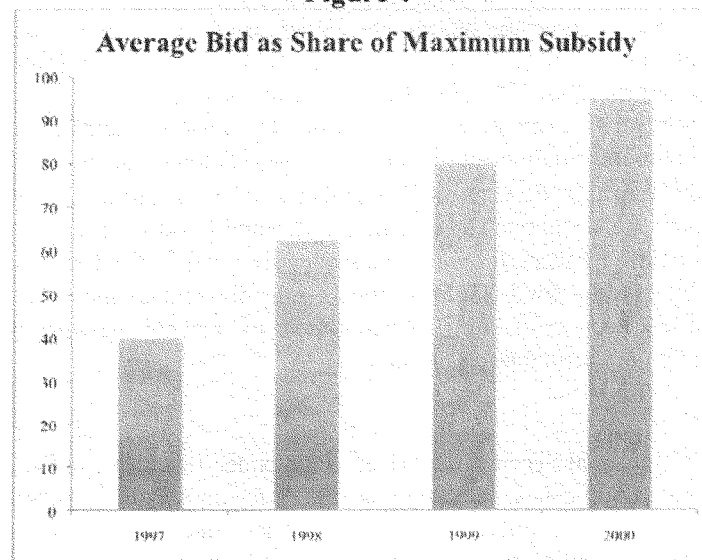
54. See fig.4; *infra*; see also Wellenius, *supra* note 47, at 18 tbl.8.

55. *Id.* at 18.

56. *Id.* at 10–11.

service. The regulator could have used that information to better estimate the maximum subsidy necessary to provide service. If this occurred, one would expect bids to come close to the estimated maximum.

Figure 4<sup>57</sup>



### C. Colombia

Colombia first used subsidy auctions in 1999 through its Compartel Program after a 1998 government report showed that few rural areas had telecommunications access.<sup>58</sup> Intelecon Research & Consultancy described the broad goals of the program:

The Compartel Program aims to afford coverage to every municipality in Colombia through the provision of community use telephones and Internet community access centres.

Compartel auctions social telephony projects across various regions of the country. The Program guarantees the operation and maintenance of

57. See *id.* at 18 tbl.8.

58. See Siddhartha Raja, *Funding Universal Service: A Case for Subsidy Auctions* 16 (2003) (unpublished paper, on file with Stanford University Department of Management and Engineering), available at <http://www.geocities.com/sidheertraja/documents/Paper-FINAL.pdf>.

the telephones for 10 years. Winning bidders are selected based on meeting technical requirements with the smallest subsidy requested.<sup>59</sup>

GVT won the first auction in 1999 and provided 6,745 telephones and 670 Internet access points.<sup>60</sup> GVT received about US\$32 million out of the US\$71 million that had been available.<sup>61</sup>

The second auction was held in December 2000.<sup>62</sup> Only one firm bid for subsidies to install “21,500 residential lines and 61 community Internet centers by April 2002.”<sup>63</sup> The Communications Ministry, however, declared the results of this auction invalid due to “various anomalies and omissions in the information supplied by [the sole bidding company].”<sup>64</sup>

The third auction occurred in November 2002 to install and operate 500 telecenters for telephone and Internet service and also to build a 3,000-site fixed satellite network for rural areas over six years.<sup>65</sup> GVT won this contract after bidding for US\$65 million in subsidies out of the US\$100 million that had been available.<sup>66</sup> INTELECON reported that this network was operational by the fourth quarter of 2003.<sup>67</sup>

#### *D. India*

India’s Universal Service Fund (USF) is intended to reimburse the net cost (costs minus revenues) of providing rural telecom service.<sup>68</sup> Because costs may vary across different types of service and different service segments, separate auctions determine the actual reimbursement to be awarded for each. When awarding licenses for cellular telephone service, the Department of Telecommunications (DoT) divided the country into twenty telecom “circles” (which loosely follow state boundaries).<sup>69</sup> These circles were used as the basis for geographic reference in the rural subsidy auctions.

Telecommunications firms submitted bids to provide service.<sup>70</sup> The firm that bid for the lowest subsidy, as long as the bid was no higher than a

---

59. INTELECON RESEARCH & CONSULTANCY LTD., UNIVERSAL ACCESS FUNDS 14 (2006), <http://www.inteleconresearch.com/pages/documents/UA Funds2007update.pdf>.

60. *Id.*

61. See DYMOND & OESTMANN, *supra* note 14, at 3.

62. Raja, *supra* note 60, at 16.

63. *Id.*

64. *Id.* at 16-17.

65. See INTELECON RESEARCH & CONSULTANCY, *supra* note 61, at 17.

66. Raja, *supra* note 60, at 17; see also Gilat Satellite Networks Ltd., Annual Report (Form 20-F) (Mar. 6, 2003).

67. See INTELECON RESEARCH & CONSULTANCY, *supra* note 61, at 14.

68. See Noll & Wallsten, *supra* note 14, at 264. This Section of the Article draws primarily from the cited work, with some minor changes and additions.

69. See Noll & Wallsten, *supra* note 14, at 265.

70. *Id.*

set benchmark, was eligible to be reimbursed for that amount from the fund.<sup>71</sup> Benchmarks were set using information primarily from the incumbent, Bharat Sanchar Nigam Ltd. (BSNL).<sup>72</sup> Any firm with a license to provide basic or cellular service in the relevant service area was eligible to bid.<sup>73</sup> The winner received a subsidy for seven years, subject to review after three years.<sup>74</sup>

India held several auctions, each for different types of telecommunications services. The first, in March 2003, was to install village public telephones (VPTs) in 520,000 villages.<sup>75</sup> The second, in September 2003, was to replace about 180,000 Multi Access Radio Relay-based VPTs. The third, held in September 2004, was to provide additional rural community phones in about 46,000 villages. The fourth, in November 2004, was to install VPTs in the 66,000 villages that had no public telephone facilities.<sup>76</sup> The fifth, in March 2005, was to provide direct rural exchange lines in 227 regions. The most recent auction took place in April 2007 to provide mobile services.

The auctions yielded dramatically different results.<sup>77</sup> The first two subsidy auctions, relating to Primary VPTs and replacing Multi Access Radio Relay-based VPTs, were disappointing.<sup>78</sup> In nineteen of the twenty circles only one firm bid for the subsidies, the incumbent BSNL.<sup>79</sup> Not surprisingly, given the thin market, BSNL bid exactly the benchmark amount, which was the maximum subsidy DoT was prepared to provide. By the final auction, however, some firms even bid negative amounts, demonstrating that they were willing to pay to provide service.<sup>80</sup>

At least three problems led to the failure of the first two auctions to create genuine competition for rural public service. First, the calculations for the benchmark subsidy were not plausibly based on accurate information or on the appropriate standard, which is the incremental cost of

---

71. *Id.*

72. *Id.*

73. *Id.*

74. *Id.*

75. *Id.* at 268.

76. *Id.* at 268.

77. See Noll & Wallsten, *supra* note 14, at 265.

78. *Id.*

79. Interview with Shyamal Ghosh, Sec. of Telecomm., India in Delhi, India (Feb. 20, 2004).

80. See, e.g., *At Your Service: Telecoms in the developing world*, THE ECONOMIST, March 31, 2007 at 75.



public telephone service. The cost data used for calculating these benchmarks were provided primarily by BSNL. While there were rigorous independent attempts to verify the information, BSNL's accounts are aggregated in a way that makes it impossible to separate costs for different operations, which in turn makes incremental cost calculations extremely difficult.<sup>81</sup>

Second, callers pay "access deficit charges" (ADCs), which are surcharges on telephone calls that, in theory, help pay for existing service in unprofitable areas.<sup>82</sup> BSNL received nearly all of the ADC cross-subsidies.<sup>83</sup> The incumbent has potential gains from manipulating how cost information is aggregated across service categories and across high-cost and low-cost areas because these data determine not only the benchmark subsidy for public telephones, but also the magnitude of the net deficit for all local access service. If some ambiguous cost elements are allocated to subsidized areas, the effect will be to increase both the public telephone subsidy and the ADC subsidy.

Third, bidding was open only to basic service operators already providing rural service in the area. BSNL, even though it historically had not served many villages, owned some facilities in these areas; however, few other firms had entered these markets, in part because they were opened only recently and in part because disputes about the terms and conditions of interconnection with BSNL remained unresolved.<sup>84</sup>

The fact that the first two auctions covered VPTs in areas in which the incumbent operator already had built infrastructure gave the incumbent a distinct advantage and limited the ability of private operators to compete.<sup>85</sup> Firms not yet operating could bid for the public telephone subsidy only if no other bids were received or if the bids by others exceeded the benchmark.<sup>86</sup> By precluding firms that were not already present, the subsidy scheme did not encourage either entry or innovation in rural services.

The auction procedure that the DoT set up advantaged the incumbent while providing no incentive to improve efficiency. In particular, if only a single firm can qualify for the subsidy and if that firm is then reimbursed

---

81. See, e.g., Letter from T.V. Ramachandran, Dir. Gen., Cellular Operators Ass'n of India, to Shri Pradip Baijal, Chairman, Telecom Regulatory Auth. of India (June 4, 2003), available at <http://www.coai.in/docs/adc-letter-TRAI.pdf>.

82. See Noll & Wallsten, *supra* note 14, at 255.

83. *Id.* at 267.

84. *Id.*

85. *Id.*

86. *Id.* at 267 (citing *India: Universal Service Fund May Fail to Lift Off*, WDR / INTELECON REGULATORY NEWS, Apr. 3, 2002, <http://www.regulateonline.org/2003/intelecon/2002/April/A-India-020403.htm>).

the difference between its own estimates of its revenues and costs, the subsidized firm has no incentive to reduce these costs unless it can do so in ways that can be hidden from the DoT. Moreover, with only one subsidized firm in the entire nation, even benchmark competition (whereby differences between monopolies in different areas are used to evaluate performance and adjust the subsidy) is impossible, while the subsidies themselves make it impossible for nonsubsidized firms to enter the market.<sup>87</sup>

The subsidy scheme for encouraging investment in VPTs was only the first part of the reverse auction plan.<sup>88</sup> The following three auctions were more successful, attracting additional firms and yielding better outcomes.<sup>89</sup> While the incumbent won one of those three auctions and parts of the other two, private providers won parts of two auctions, and the subsidies in all three auctions were well below the benchmark amounts.<sup>90</sup>

In September 2004, the government held an auction to provide a second VPT in 300 areas (called secondary switching areas, or SSAs) that already had one.<sup>91</sup> The incumbent BSNL and Reliance Infocomm were the largest winners, and two carriers bid against each other in 115 out of the 300 SSAs. The total subsidy awarded was 17% below the benchmark amount.

A fourth auction in November 2004 was for the obligation to provide VPTs in the remaining 67,000 villages without one. The incumbent BSNL won in all twelve service areas. It faced bidding competition in three service areas, and that competition reduced the total subsidy by 15–20%.

A fifth auction for subsidies to install rural household phones was concluded in 2005 as a first step toward distributing funds for connecting individual households.<sup>92</sup> This step is potentially far more important than the first. Many more telephone lines were at stake in devising a plan for implementing extensive residential access than for providing more public telephones. While even in the best of circumstances firms might not have found subsidies for a relatively small number of public telephones an attractive basis for entering rural areas, subsidies for a much larger number of residential lines clearly are more attractive.<sup>93</sup>

---

87. Noll & Wallsten, *supra* note 14, at 268.

88. *Id.*

89. *Id.*

90. *Id.* at 266.

91. *See id.*, at 266 fn.18.

92. Noll & Wallsten, *supra* note 14, at 268.

93. *Id.*

Indeed, the 2005 auction generated more interest among private operators, and the bidding reduced subsidies by sixty to seventy-five percent of the benchmark.<sup>94</sup> BSNL won subsidies for 1,267 Short Distance Charging Areas (SDCAs, the basic service unit identified for subsidies) while two private operators won subsidies for 418 SDCAs.<sup>95</sup>

In 2007, the government conducted two auctions for mobile service in 81 “clusters” that include 250,000 villages.<sup>96</sup> The first auction was for the right to build infrastructure that could be used by other firms to provide service.<sup>97</sup> BSNL won 80% of the \$570 million to build this wholesale infrastructure.<sup>98</sup> Although BSNL dominated the winning bids, bidding competition reduced the subsidy to thirty percent below the benchmark.<sup>99</sup>

The second mobile auction in 2007 was to provide service over this “passive” network. Bidding was so intense that in many cases the winning bid was either zero or negative, meaning that the operator was willing to pay the government for the right to provide service.<sup>100</sup> *The Economist* noted:

This week the government was to have announced the winners of an auction of the rights to create and run networks in remote rural areas. Around the world, such networks are often subsidised by a “universal service fund” (USF) paid for by taxes on existing telecoms services. Auctions are held, and the network operators that demand the smallest subsidies win. They must then provide a certain number of public payphones, as well as signing up subscribers.

But something rather odd happened in India: in 38 of the 81 regions on offer, many mobile operators bid zero. In other words, they asked for no subsidies at all. In 15 regions, India's biggest operator, Bharti Airtel, even offered to pay. As a result, barely one-quarter of the 40 billion rupees (\$920m) available in subsidies is likely to be allocated. If operators reckon there is money to be made running mobile networks even in some of the poorest parts of the world, have USFs had their day?<sup>101</sup>

Unfortunately, it is not quite as easy to interpret these results as *The Economist* would suggest. These auction results demonstrate strongly that

---

94. *Id.* at 268-69.

95. *Id.* at 269 (internal citations omitted).

96. BSNL Bags 80% of Rs 2,500-Crore Rural Mobile Telephony Project, *The Hindu*, Mar. 28, 2007 [hereinafter BSNL Bags Project], available at <http://www.hinduonnet.com/thehindu/holnus/006200703280310.htm>; Thomas K. Thomas, RCom, BSNL Bag Bulk of Rural Cellular Project, *THE HINDU BUSINESS LINE*, Apr. 13, 2007, available at

<http://www.blonnet.com/2007/04/13/stories/2007041305150100.htm>.

97. See BSNL Bags Project, *supra* note 112.

98. *Id.*

99. *Id.*

100. *At Your Service*, *supra* note 87, at 75.

101. *Id.*

competition for subsidies can bring down the subsidy. Because these appeared to be bids to operate on a network being built by someone else, it is unclear why subsidies would be offered in the first place. The government of India apparently decided to separate ownership and operation of the network from service provision. The wisdom of such structural separation is heavily debated and centers on whether consumers are ultimately better off when firms compete by investing in facilities or by offering service over the same facilities. Mandatory sharing of network facilities is likely to lead to more intensive use of those facilities, but can also reduce the incentive to invest in the network itself.

In this case, we do not know what the bidding might have revealed if firms had bid simply to provide service at the lowest cost.

#### *E. Nepal*

In 2000, the Nepalese government decided to use a reverse auction process to provide telecommunications service to the 534 village development committees (VDCs—the second-smallest administrative units in Nepal) that had no such access.<sup>102</sup> Firms were to bid for a one-time subsidy and a ten-year renewable license with a five-year exclusivity guarantee.<sup>103</sup> In exchange, they were to provide two public access lines in each VDC.<sup>104</sup> Unlike most reverse auctions, in Nepal, the maximum available subsidy was not made public.<sup>105</sup>

Two firms bid in September 2000, but “the security situation” caused the winning firm to back out of its agreement.<sup>106</sup> The regulator, the Nepal Telecommunications Authority, attempted the auction again in 2003 with more success.<sup>107</sup>

Two firms bid in the 2003 auction, and the winning bidder asked for approximately US\$11.9 million to do the project.<sup>108</sup> The winner appeared to be on track to meet its first three rollout agreements by the end of 2004.<sup>109</sup> The company notes that after rolling out service to more than 500

---

102. INTVEN ET AL., *supra* note 14.

103. *Id.*

104. *Id.*

105. *Id.*

106. *Id.*

107. *Id.*

108. *Id.*

109. *Id.*

villages in 2004, it now serves “over 1,800 sites” and plans to expand service into western Nepal.<sup>110</sup>

#### *F. Peru*

Peru conducted reverse auctions from 1999 to 2001 for service in areas the regulator determined unprofitable. These included rural towns as defined by the National Institute of Statistics and Data Processing, district capitals with 3,000 inhabitants, areas without basic telecommunications services, sparsely populated areas, isolated villages, and poor areas.<sup>111</sup> The Organismo Supervisor de Inversion Privada de Telecomunicaciones (OSIPTEL) plan was to first auction subsidies for payphones, followed by Internet access, and finally subscriber-fixed telephony.<sup>112</sup>

For the first auction, firms bid for the twenty-year non-exclusive licenses to provide service in six regions of the country.<sup>113</sup> Winning firms were required to install at least one public payphone in each rural locality and public Internet access in each district capital.<sup>114</sup> The regulator had allocated US\$150 million for the project, paid for by a 1% tax on all telecommunications revenue.<sup>115</sup> The bidding process reduced the total allocated to US\$50 million. Winning firms used a range of wireless technologies, including Very Small Aperture Terminals and wireless local loops.<sup>116</sup>

The number of telephones and payphones per capita increased substantially following the auction process. While the auction seems to have effectively reduced the subsidy granted for providing these rural services, several factors make it difficult to truly evaluate the program’s effectiveness.

First, countries around the world began liberalizing their telecommunications sectors in the 1990s, leading to rapid increases in

---

110. STM, The DVB-RCS VSAT Leader - STM in Nepal, [http://www.stmi.com/index.php?option=com\\_content&task=view&id=125&Itemid=277](http://www.stmi.com/index.php?option=com_content&task=view&id=125&Itemid=277) (last visited Jan. 30, 2009).

111. Jorge M. Bossio, Universal Access Funds in Latin America, Presentation for UNCTAD Expert Meeting, slide 28 (Nov. 14-16, 2006) (power point slides available at [www.unctad.org/sections/wcmu/docs/clem30p026\\_en.pdf](http://www.unctad.org/sections/wcmu/docs/clem30p026_en.pdf)).

112. *Id.* at slide 26.

113. Geoffrey Cannock, *Telecom Subsidies: Output-Based Contracts for Rural Service in Peru*, VIEWPOINT (World Bank), June 2001, at 2.

114. *Id.*

115. Harsha de Silva, What Regulators Can Do To Facilitate Universal Service: Universal Service Funds and Least-Cost Subsidy Auctions, Presentation given in Singapore, slides 6, 10 (Feb. 27, 2007) (slides available at <http://www.limeasia.net/wp-content/uploads/2006/02/Malik%20de%20Silva%20Sept%202005%20final.pdf>).

116. See Raja, *supra* note 60.

investment.<sup>117</sup> An increase in Peru, therefore, cannot simply be attributed to one policy intervention absent a well-designed test of its effectiveness. Second, some winning firms did not meet their rollout obligations.<sup>118</sup> Assuming corruption was not a factor, a “winner’s curse” might have left firms unable to provide service profitably. That is, the winning firms may have underestimated the costs of meeting the obligations and bid too little.<sup>119</sup> Finally, winning firms were given spectrum rights to provide service. The true subsidy, therefore, includes not just the US\$50 million granted to the winning firms, but also the opportunity cost of these spectrum rights.

#### IV. DISCUSSION AND CONCLUSION

In principle, reverse auctions are simple. The government defines say, a region, and asks for bids to provide service. Firms submit bids of how much the government would have to pay them to provide service in that region. The firm that asks for the smallest subsidy, all else being equal, wins the reverse auction and thus agrees to provide service in exchange for the subsidy it bid.

While the United States has not taken this approach for telecommunications, it may be the most common method the government uses when purchasing goods and services from the private sector. With most large purchases, a government agency issues an RFP describing in detail the product it wants to acquire. These products can be as simple as reams of papers or as sophisticated as tankers used to refill fighter jets in flight or supercomputers used for weapons testing and weather forecasting. Firms wishing to win this business submit bids and, all else being equal, the firm submitting the lowest bid wins the right to provide the service.

The details of a reverse auction, however, are different from most procurement requests. When designing these auctions, policymakers have several difficult questions to answer. Should multiple firms be able to win in any given area, or should only a single firm win each auction? The advantage of allowing multiple firms to win is that it can create competition in the market for services. The disadvantage is that it could

---

117. Scott Wallsten, *An Econometric Analysis of Telecom Competition, Privatization, and Regulation in Africa and Latin America*, 49 J. OF INDUS. ECON. 1, 5 (2001).

118. PAYAL MALIK & HARSHA DE SILVA, *DIVERSIFYING NETWORK PARTICIPATION: STUDY OF INDIA'S UNIVERSAL SERVICE INSTRUMENTS* (2005) at 23.

119. See de Silva, *supra* note 131, at slide 17.

drive up universal expenditures substantially, negating part of the purpose of the auctions.

How should reverse auctions continue over time in a given geographic area? The question of how to proceed after the auctions may be especially important if only one firm wins. In that case, firms compete for the market rather than in the market, meaning that there must be some future competition for the market.

Reverse auctions for universal service have been employed in several other countries around the world. One lesson is clear: details of the auction matter. A poorly designed auction may not generate any improvement over the status quo.

The second lesson is that reverse auctions can be implemented successfully. When done properly, they may reduce expenditures on universal service. That is, the auctions create a market where none existed and use that market to reveal the expected costs of providing telecommunications services. The information may not be complete, depending on the degree of competition, but it improves on the situation prior to the auction.

Many of the cases discussed in this paper are not directly comparable to providing universal service in the United States. In particular, the schemes intended to supply a payphone to a town or village would not be repeated in the United States, and it is presumably easier to define precisely what a bid is for under those conditions. In an auction, the good or service being sold must be well-defined or bidders will have difficulty assigning values to it.

Dale Lehman wrote that these experiences have little applicability in the United States: "It is also worth noting that the 'successful' Latin American reverse auctions rely, in part, on asymmetric interconnection fees to support rural providers. For example, the largest Chilean rural operator gets 60% of its total revenues from such charges; Colombia has recently introduced asymmetric fees, and Peru plans to."<sup>120</sup>

Lehman is correct in noting that these asymmetric fees are problematic. The claim that the presence of these fees means that the auctions may not have been a success, however, is probably incorrect. In a fair auction, the bidders take into account all future streams of income (and expenses) when making their bids. Bids, presumably, thus take into account expectations of these asymmetric fees. More importantly, as a result of the

---

120. DALE E. LEHMAN, *THE USE OF REVERSE AUCTIONS FOR PROVISION OF UNIVERSAL SERVICE*, submitted with Nat'l Telecomm. Coop. Ass'n Initial Comments, Federal-State Joint Board on Universal Service Seeks Comment on the Merits of Using Auctions to Determine High-Cost Universal Service Support, FCC WC Docket No. 05-337 at app. A, 20 (rel. Oct. 10, 2006).

auctions, governments spent less subsidizing universal service than they would have otherwise.

As discussed above, while reverse auctions may be a new way to distribute funds for universal telecommunications service, it is the standard way the U.S. government procures most goods and services. In addition, several countries around the world have used reverse auctions to distribute universal service funds. Most of these reverse auctions have been successful in reducing expenditures on universal service. In two cases the auctions did not reduce expenditures (Australia, and the first and second auctions in India), but even there, expenditures were not more than they would have been without an auction.

However, policymakers must carefully consider two issues. First, they must take into account the effects of the incumbent's information advantages and existing infrastructure, which can advantage it relative to potential competitors. Second, policymakers must be clear about their objective. The existing evidence shows that reverse auctions can effectively reduce expenditures by promoting competition *for* the market rather than competition *in* the market. Reducing expenditures on universal service may not be consistent, at least in the short run, with increasing competition in a given geographic market.

In sum, reverse auctions have proven themselves both feasible and effective mechanisms for reducing expenditures on universal service and for revealing information about the true costs of supplying service in rural areas. Assuming these policy goals, policymakers in the United States should, at a minimum, devise pilot projects to begin implementing this idea.



Mr. BOUCHER. Thank you very much, Mr. Wallsten, and thanks to all of our witnesses for their testimony here this morning. The chair recognizes himself for a first round of questions.

In the recently enacted stimulus measure, fully \$7.2 billion has now been made available for broadband deployment. That money will be distributed through grants, loans, loan guarantees by NTA and by the Rural Utilities Service and the U.S. Department of Agriculture, and to my way of thinking, that to some extent changes the dynamic for how we should consider universal service and specifically broadband. So my questions to any who desire to respond would be this: how should we consider the availability of that stimulus money, \$7.2 billion, as we consider, number one, making broadband an eligible expenditure for universal service funding, and potentially number two, requiring that the recipients of universal service funding provide broadband at certain minimum speeds throughout their entire service territory? Does the availability of that stimulus funding now make it feasible with a potential funding source in order to impose that requirement? And who would like to respond? Mr. Davis.

Mr. DAVIS. At least I will start. Mr. Chairman, first we applaud the efforts of the Congress in the stimulus to address broadband and to create that stimulus package. We think it creates a very good starting point. When we look at the cost of deploying broadband to additional areas, rural areas of our territory, it appeared to us or we estimated that the cost of increasing our deployment from 85 percent to 95 percent would have taken around \$3 billion or thereabouts. And so I think the stimulus package adopted by the Congress is a good starting point and will get us on the right path, but I think if we are talking about ubiquitous broadband across America, then I think it is a starting point but more needs to be done and that is why we suggest that universal service be extended to broadband facilities.

I also think that it gives us a point to begin the discussion of what speeds are adequate with respect to deploying broadband, what is the speed that we need to meet today's needs and yet not goldplate the expenditures.

Mr. BOUCHER. Let me put the question very specifically. Current law says that USF money may not be spent for broadband. I would assume there is fairly broad agreement here that we ought to modify that to at least say it is an eligible subject for expenditure. Would you agree with that, Mr. Davis?

Mr. DAVIS. I would.

Mr. BOUCHER. Would anyone disagree with that? There is no disagreement. The better question is whether or not as the draft that Mr. Terry and I have put forward would require that we actually impose an obligation on the recipients of universal service funding to provide broadband, to do so throughout their service territories and to do so at a certain minimum speed. It is a pretty low speed. I think we have got a megabit per second, which on today's metric is not extraordinarily high. So my question is this: Does the availability of 7.2 billion on a nationwide basis in the stimulus measure for broadband make it more feasible to impose that obligation, that if you are going to receive USF money, you have to deploy it.

Mr. DAVIS. I think—

Mr. BOUCHER. And Mr. Davis, I think a yes or no at this point from you, because I want to give others a chance.

Mr. DAVIS. The answer would be no.

Mr. BOUCHER. All right. Others care to comment on that? Yes, Mr. Gerke.

Mr. GERKE. Thank you, Chairman. We certainly applaud the efforts in the stimulus and very much want to participate there. We definitely agree that broadband should be eligible. We have done a similar estimate to what Mr. Davis talked about, and for our part, to get us up to 100 percent, it would be about \$2 billion. That would not be economical without assistance. So what we are going to get from stimulus, and you know how that works and hopefully it get directed to unserved areas, and what we can continue under USF would not come close to fulfilling that. We would certainly commit to utilize all the money that we get to continue to fulfill our USF obligation of extending the service, maintaining it and keeping that service alive and available to those rural residents.

Mr. BOUCHER. All right. Others care to comment on that question? Mr. Hale?

Mr. HALE. I would just say that most of our members are deploying broadband in their areas but there could be extremely high-cost areas with a cap on the fund where there wouldn't be cost recovery for those areas, so there could be extreme—you know, in general, yes, we would deploy it and we are deploying it but there could be very, very small rural areas that it would be difficult to deploy with the cap on the fund.

Mr. BOUCHER. I am detecting some hesitation about whether or not we should impose that requirement. Mr. Tauke?

Mr. TAUKE. There is no question but it is a stretch for a lot of carriers to be able to meet a requirement to deliver broadband even at the speeds you mentioned within the 5-year period, but I think it really hard from a public policy perspective to say that we are going to indefinitely provide funding for voice services when voice services is not what the future is about. So whether it is 5 years or 7 years or 4 years, I don't know the answer to that question, but I think once the mapping is completed and you have a better handle on what it is out there that is unserved, then you can begin to get a better handle on how much capital is needed in order to be able to meet those needs. Maybe there will have to be a little more capital provided besides what is in the stimulus package. But I don't think it is unreasonable to have some kind of requirement for broadband for those who are receiving those funds.

Mr. BOUCHER. Thank you very much, Mr. Tauke.

Mr. TAUKE. I have one point that I would like to make, Mr. Chairman, if I could have the opportunity, is that I think it is really important that this committee provide good oversight and perhaps even direction to the Administration's agencies that are administering the stimulus funds. There are a lot of new people there, a lot of great people, but I think this committee has a lot of history and I think probably can give some good guidance the way in which these funds are administered to achieve the objective.

Mr. BOUCHER. Thank you very much, Mr. Tauke, and I might comment that we are in the process of doing precisely that now through conversations with both of the grant-making agencies with

the Administration and we will actually move to an oversight hearing on that very issue in the not too distant future.

My time is expired. The gentleman from Florida is recognized for 5 minutes.

Mr. STEARNS. Thank you, Mr. Chairman.

Mr. Wallsten, let me just ask a blunt question. I mean, obviously everybody in the room agrees that the Universal Service Fund is broken and it is not working to taxpayers' advantage and we need to do something. What about just eliminating the Universal Service Fund? Now, I say that because when AT&T started, they were the one carrier and that is how the program got started. Now you can go to—Mr. Gerke, even in my Congressional district, which you serve, is a lot of rural areas, they can get service from more than Embarq, so forget for a second broadband, just talking about Universal Service Fund for land lease lines. Why is it still necessary to do this?

Mr. WALLSTEN. Well, I think that is a good point. It was originally started to make sure that we brought telecommunications services to areas and once it was there—

Mr. STEARNS. Can I just ask you, do you agree there is a possibility we don't even need Universal Service Fund for what it is doing now?

Mr. WALLSTEN. I am sure there are definitely areas where that is true, and if we have reverse auctions in areas like that, if all carriers were eligible, you would find places where firms bid zero, possibly even were willing to pay.

Mr. STEARNS. In the bill that Mr. Barton and I dropped in the last Congress, we listed that we no longer have companies get reimbursed for artwork, cafeteria, lunchrooms, vending machines, charitable contributions, lobbying, public relations, janitorial service. All these were the costs that people like Mr. Gailey or Mr. Hale used in their reimbursement expenses that they would put on top and give to the FCC. And so in our bill we said, gee, we didn't think sewage or water utilities or membership fees in social and political clubs and recreational clubs were necessary to be expenses. So we said, you know, let us make sure that they don't be incurred. As Mr. Tauke said and I think Mr. Waxman is sort of looking at and which is very encouraging for me to talk about reverse auctions, and Mr. Wallsten, you had indicated that would be the key here, and particularly you talked about this Identical Support Rule and if we did away with that and we had reverse auctions, bingo, then we would be out of this business of getting reimbursed upon the membership fees and dues in social and political services. Is that correct?

Mr. WALLSTEN. Yes. If these auctions were done correctly, firms are going to want to win the auction and they are not going to include costs like that because then they wouldn't win.

Mr. STEARNS. Now, Mr. Davis, I am a little concerned to hear you say when you talk about broadband the \$7.2 billion that is in the stimulus package, you say that is just the beginning. So you are asking the government to continue to tax people who are getting phones lines for a lot more than the \$7.2 billion. Because you realize, if we spend that \$7.2 billion this year and the Universal Service Fund is about \$7 billion now, so if we are going to tax them

next year, it is going to go from 11 percent of the bill to 22 percent of the bill. So we are really working backwards. I think Mr. Gerke said we are going to spend \$2 billion in broadband and we could use the help. I think those were your words. So now you are coming here and asking us here on the committee to give you \$7.2 billion this year and more money this year, and if Mr. Gerke needs \$2 billion, then I assume you need \$2 billion, and I am sure everybody in this room including the people in the last row could use \$2 billion.

So Mr. Wallsten, am I wrong? I mean, why should I tax people when AT&T just announced it plans to spend \$12 billion in capital expenditures on broadband in 2009? And I applaud them for doing that, you know, but if the private sector is going to go out and do it, I mean, I am not clear, Mr. Davis, why you are saying this is just the beginning, you want the government to continue to fund this through the Universal Service Fund. That is what you are saying.

Mr. DAVIS. Mr. Congressman, what I would say first is that we believe that the size of the fund should not be increased. The size of the fund does not need—

Mr. STEARNS. But you—

Mr. DAVIS. —larger for us to spend—

Mr. STEARNS. But you believe we should tax the people who use the phone for this money is what you are saying?

Mr. DAVIS. I believe that we can more wisely use the fund, reform the fund without increasing the size of the fund, we can provide universal broadband service.

Mr. STEARNS. Mr. Wallsten, even if we do the reverse auction and we did away with the Identical Support Rule, and let us just talk about broadband, how in the world can we go back and ask the taxpayers to pay for this broadband when it looks like the private sector is willing to do it?

Mr. WALLSTEN. Well, as you are pointing out and as others have pointed out here, there are two issues. One is how we raise the money and the other is how we distribute the funds, and the way we raise the money is especially inefficient. Every user of telecommunications services has to pay into this fund including low-income users, most of whom don't receive anything. There have been many studies on this. A paper by Jerry Houseman estimated that each dollar raised in taxes on wireless services costs the economy an extra 72 cents to \$1.14. Jerry Ellig estimated that these taxes on wireless services and interstate long distance to support universal service reduced economic welfare by about \$2 billion a year. So on raising the fund size, it is inefficient and inequitable, inefficient because it is not a good way to raise taxes. You are taxing a price-sensitive service. And it is inequitable because you are imposing the tax including low-income people, and then to turn around and use it to subsidize people who are not necessarily low income, so that is the—

Mr. STEARNS. Thank you, Mr. Chairman.

Mr. BOUCHER. Thank you very much, Mr. Stearns.

The gentlelady from the Virgin Islands, Mrs. Christensen, is recognized for 5 minutes.

Mrs. CHRISTENSEN. Thank you, Mr. Chairman. I hope my questions, well, they will probably let you know that I am new to telecommunications but I do have a few questions to ask.

I will start with Mr. Tauke. You are a strong proponent of capping the High-Cost Fund, and opponents say that it could have unintended consequences that could undermine the universal service goals so how would you respond to that concern?

Mr. TAUKE. I think the key is to direct the money to the area where it is needed. Today we provide a lot of support for old technology and we provide support for multiple recipients in a given area, so using Mr. Gerke's chart before of Indiana, a lot of money is going into the hole in that donut when the need is outside in the donut itself, and so if you can redirect the funds to the area where it is needed, I think you can meet the needs without spending more money. But if you don't cap the fund, I think what will happen is, is that we will keep adding on more things, so we need to redirect, not just add on. Because consumers are paying the bill and right now the bill is, you know, hovering around 9½ to 11 percent on the bottom of the bill.

Mrs. CHRISTENSEN. Thank you.

Mr. Davis, obviously this hearing is in part about some of the inequities in the system, and one you raise is how the rural side of your business, the services you provide to the rural areas doesn't get the support. Are you recommending the same treatment for rural and non-rural or are you just recommending that your service to your rural areas get the support even though you are not considered a rural provider?

Mr. DAVIS. I am suggesting the same treatment for rural and non-rural carriers such that we look at the specific geography and whether or not it is rural and support it irrespective of whether or not the company also serves urban areas.

Mrs. CHRISTENSEN. I understand.

Mr. Tauke and Mr. Lubin, as I understand, both of you support going to a numbers-based system. How would you address concerns raised that this could raise the cost to consumers?

Mr. LUBIN. With regard to the question, will it raise the cost to consumers, my belief is, I believe it will reduce the overall contribution paid by the residential consumer, that the value of having a telephone number collection mechanism is first you get certainty. You know what it is. It doesn't fluctuate month by month. Sometimes you will pay 50 cents because you are not making a lot of calls. The next month maybe you have some family positive life event and you make a significant amount of calls and all of a sudden you can see a USF line item for \$5 because you made a lot of calls. So you see a lot more stability but the beauty of what the coalition did that Tom Tauke talked about, which AT&T participated in, is that the actual telephone number rate when you look at it in aggregate over the residential user was paying less. In addition, that coalition exempted lifeline customers. So a lifeline customer would not pay the line item. And you heard the previous speaker highlight that in the ways in which you collect it today, customers who are on lifeline are still contributing to it on certain portions of their revenue.

Mr. TAUKE. I would reiterate everything Mr. Lubin said. Bottom line is that the number system and the way it was designed and the submission that a number of us made to the FCC slightly shifts the cost from residential to consumer, or from consumer to commercial, so from residential to commercial. So it lowers the overall costs for consumers and at the same time it takes care of the low-income consumer.

Mrs. CHRISTENSEN. Mr. Wallsten, you are supportive of reverse auctions. Why not base it on carrier costs as others would suggest?

Mr. WALLSTEN. The main problem with using carrier costs is that it is impossible to know what they are, and companies will always have an incentive to say that their costs are higher than they are so that they can increase their subsidy and it reduces any incentive for them to work more efficiently, because the higher their costs are, the bigger the subsidy they get and so you can end up in sort of a constant spiral of increasing subsidies.

Mrs. CHRISTENSEN. Thank you, Mr. Chairman. I have no further questions.

Mr. BOUCHER. Thank you very much, Mrs. Christensen.

The gentleman from Texas, Mr. Barton, the ranking member of the full committee, is recognized for 5 minutes.

Mr. BARTON. Well, thank you, Mr. Chairman. I commend you for rescuing me from climate change hearing fatigue. We have our second one of those of the week going on upstairs, so it is nice to come down and participate in a hearing that is on something else. It is also nice to have a hearing entitled "Universal Service Fund: Reforming High-Cost Support." We have got the word "reform" in there, which is good; universal service, which is good. I wish instead of "reforming" you would have "repealing" but that is just wishful thinking on my part.

It is ironic to me that we have a program looking for a need to continue to exist. I would have voted for universal service in the beginning back in the 1930s when my district in rural Texas had very few telephones outside of the small communities and the few cities in the district. I still support some sort of a universal service requirement, I suppose, but I am at a loss to figure out why we need to change the definition. But maybe if you can't kill the snake, it may be time to change it in such a way that we get some benefit, and I thought your question, Mr. Chairman, about a requirement if you are going to receive universal service funds you should have to provide broadband. I think that is a very good question. If you can't kill it, at least require something that is useful today, so I am intrigued by that.

Mr. Tauke, I thought you gave one of the more articulate opening statements. I know that is because you used to be a member of this committee, which is not widely known and you don't talk about in polite company much more these days, but you were a member of this committee. Why would somebody oppose a reverse auction or why would somebody support a cost-based system reimbursement? If we are going to have it, why not do reverse auctions? Why not do competitive bidding? I mean, obviously that would save money and you would still have the basic requirement to provide the services.

Mr. TAUKE. I am probably not the best person to answer that question since we support reverse auctions and competitive bidding, but as I understand the arguments of those who oppose it, the first argument is that they favor having multiple carriers in a given area. Parenthetically, I guess first we don't think—just as a company it is our view that—

Mr. BARTON. Well, then go to competitive bidding.

Mr. TAUKE. If you have an unserved area, we don't see why you should support multiple carriers in that area, especially because as technology develops, those multiple carriers are going to come anyway. But for the near term, why should the government subsidize multiple players?

But secondly, if you decided you really wanted multiple players, you could through a competitive bidding process provide that support to two or three carriers if you wanted to do that. But to try to have a system that is focused on determining costs, I think, is going to be counterproductive in a whole variety of ways, which I have already alluded to.

Mr. BARTON. I am going to ask the gentleman next to you, who is an advocate of classic universal service, why couldn't you exist in a world of competitive bidding or reverse auction? I thought your chart was informative. You know, I still have areas in my district that have significant rural areas. So why couldn't you exist in a competitive bidding reverse auction world?

Mr. GERKE. I think the most critical thing to emphasize is one of the points that Mr. Wallsten made, which is you have to tie it to carrier of last resort. A lot of the proposals with respect to reverse auctions allow people to come in, identify areas and cherry-pick those and then leave me or similarly situated people to try to figure out how you make a profit on \$266 per month of cost and a \$25 or whatever receipt, and so if we can't isolate and leave behind those Americans, which is exactly what 254 was intended to stop or avoid, I think it is absolutely key that that concept—

Mr. BARTON. Well, do you accept as a carrier of last resort that you can be served in a wireless mode as opposed to a wireline mode?

Mr. GERKE. Well, that is my point. If a wireless carrier would win, they would need to take that obligation to serve the entire area and relieve the underlying carrier so we wouldn't have that unprofitable operation separated and forced upon you.

Mr. BARTON. I know my time is expired, but if we accepted that a wireless carrier is acceptable for the carrier of last resort, and I am not saying that you have to accept that, but if you do, is it not true that the cost to serve as last resort would not be \$266 per month?

Mr. GERKE. They would have to calculate their own costs. With our network already in the ground and because their CFOs don't have them building out to those most rural areas, I am assuming they have got a cost that doesn't make sense for them.

Mr. BARTON. Thank you, Mr. Chairman.

Mr. BOUCHER. Thank you very much, Mr. Barton.

The gentleman from Michigan, Mr. Stupak, is recognized for 5 minutes.

Mr. STUPAK. Thank you, Mr. Chairman.

Mr. Gerke, in your testimony you mentioned about using the data that we have from a broadband inventory map as a means to retarget high-cost support either at the wire center level or even more granular. Can you explain what you mean by a more granular targeting?

Mr. GERKE. Well, I am just open to dialog among the industry and with the committee. My thought is, you want to make sure that you separate out from providing service or pollute the calculation with numbers that, you know, represent a different market than what is really being targeted under 254, which is the rural market, and the statewide averaging does that, so the wire center is a great way to target it. I think it just was an expression of our openness to figure out what is the most laser-like manner in which we can proceed.

Mr. STUPAK. Right, but isn't the wire center at times targeting too narrow, considering the size of the rural area?

Mr. GERKE. Well, as long as you are talking within a particular rural area, you can look at the different wire centers that are there and then calculate the cost based on that.

Mr. STUPAK. OK. Mr. Carlson, if I may, I share some of U.S. Cellular's concern that the FCC does not have accurate mobile wireless service coverage data. What level of detail do you believe is appropriate for the Commission to have to improve their ability to administer funds, and are we talking about creating something similar to the broadband inventory map for wireless carriers?

Mr. CARLSON. Yes. I think the detail needs to go down below the zip code level, because if you work with a zip code you could have areas that were both high density and low density within the same zip code, and I think ultimately what we need to do is identify the cost characteristics of each area so that we could introduce a cost model. That would take us away from this issue of subsidizing inefficient carriers. With a cost model approach, we would be subsidizing only those areas which truly were low density and therefore for any carrier to serve them with high-quality service would have relatively high cost. So we are advocates of high-cost model system which would require us to get down to that very granular, below zip code level.

Mr. STUPAK. OK. Thanks.

Mr. Tauke, you raised an interesting proposal for the creation of the subsidy of the middle mile, the long haul between a rural Internet end user and the network. Are the costs associated with developing a connection not fully supported by the current USF because it is strictly broadband in nature?

Mr. TAUKE. The costs of the middle mile are not currently subsidized to the extent that it is necessary in order to deliver broadband services to consumers. So when we look at the challenges of delivering service to, let us say the eastern shore of Maryland or western Maryland or Congressman Boucher's district or parts of West Virginia, various areas we serve, the bottom line is that sometimes the costs of providing the last mile in a community or area is much less than the ongoing costs of the 50 miles of transport you have to build. And so that is why when we looked at this issue, we said this is an area that needs to be addressed, hopefully that some of the stimulus money would go to building that middle



mile, but in the interim it seemed to us that there was a need for some kind of program to address that issue and that is why we proposed establishing a separate fund in that area. In some cases the cost is almost \$100 a month that we have seen for just the transport piece per customer.

Mr. STUPAK. Well, you mentioned the economic recovery package, that that may be some source of it. Would it go for construction then, that money? Would you say that? Or are we talking about operations and maintenance? And since you are suggesting there be a temporary support, how long should it last?

Mr. TAUKE. We believe that the primary issue is an issue of construction or capital expenditure. Two things happen over time. One is that you get more broadband penetration so you have more customers using that middle mile, and once the middle mile is developed and the customers have access to broadband, they are buying more services so therefore the revenue per customer goes up. So the combination of more customers and more revenue per customer probably would allow for the operation and some maintenance costs of the last mile and the middle mile to be supported in most instances. But the upfront capital expenditure is big.

Mr. STUPAK. So how long it would last just depends on how long that middle mile got developed, how many users got in before you could—

Mr. TAUKE. We are working on it. Maybe I will have a better answer in weeks but right now I don't have a firm answer. Our sense is that, you know, it is something that should be looked at in 5 years. You could put it in place, have the FCC review it in 5 years, something like that, but I think that we just need to do more work and maybe we will come up with a better answer for you a few weeks down the road.

Mr. STUPAK. Thanks.

Mr. BOUCHER. Thank you, Mr. Stupak.

The gentleman from Oregon, Mr. Walden, is recognized for a total of 7 minutes.

Mr. WALDEN. Thank you, Mr. Chairman. I appreciate it, and I appreciate all the testimony of the witnesses.

Mr. Carlson, I want to especially draw some attention to you because I appreciate your company's willingness to come into the great metropolis of Fossil, Oregon, where there are 208 households, 469 souls as of the 2000 census. I would like you to write down the words Ione, Oregon, population 321, also seeking cellular coverage for the first time in its history, and then they are approaching you and all. But I throw that out there because I know USF played a key role in serving an area. Fossil, by the way, is the county seat of Wheeler County, and there were very serious, legitimate concerns the community had about having no cell service when it gets a lot of people floating in the nearby river and there are traffic accidents and things, so I do appreciate that. Can you speak, though, a bit about the High-Cost Fund and how the wireline, the wireless industries each get out of this—what they get out and how much customers pay into the fund. How do we make this work so we get wireless service out there? What works for you and what would be detrimental to getting that first and only service out there?

Mr. CARLSON. Well, I think that today it is important to remember that wireless today, wireless is receiving only about 25 percent of the total program funds as opposed to wireline, which receives about 75 percent, and, you know, I am not smart enough to know if that is the right balance or not but what I do know is that wireless more and more is becoming, you know, the dominant form of people communicating, certainly for voice services, and I think that the data services are growing rapidly with wireless. So I would hope that the committee in its judgment would consider to think about the future for technology and not be looking backward about where technology investments have been made but look at where the country needs to go, and I believe that when you think about that, wireless will play an ever-bigger role in bringing the best service, best quality service out to rural Americans.

Mr. WALDEN. And I don't disagree with that. I think there are issues related to that compensation level and the costs, and I think that is something we are all going to struggle with, and I am not sure I agree with Mr. Wallsten about once it is built you can walk away from it, and maybe I am mischaracterizing your comments, sir, but I sense that once it is out there, then whoever is cheapest at providing the service should be the one that gets reimbursed or that is the reimbursement rate, and it strikes me that that means a cellular carrier who may have a lot cheaper ability to provide cellular service might set the rate and yet a lot of people may not have cell phones but have a line into their home, and if you are out in rural Wheeler County or Morrow County, it is going to be much more expensive to have that hard wireline, and I guess my question to you is, is that what you were saying in your testimony, that we find the cheapest reimbursement, the provider that can do it cheapest, and that would become the rate?

Mr. WALLSTEN. Well, you have to first define what exactly it is that you want, and then you want to find the lowest cost method of reimbursing that, and if what you want is, well, in this case we are talking the fund currently focuses on voice service, then you do want the lowest cost mechanism of doing it and you don't want to continue supporting a very high-cost approach just because it has always been there.

Mr. WALDEN. So I did understand you correctly then?

Mr. WALLSTEN. If they can bid and can continue offering that service at a low cost, then that would be fine.

Mr. WALDEN. OK. I want to go next to our witness from Verizon. What are the pros and cons of using actual cost versus a reverse auction or competitive bidding to determining the distribution of those amounts, Mr. Tauke?

Mr. TAUKE. First, to be clear, we favor reverse auctions for mobile carriers, not for fixed carriers, because in fixed carriers we have generally only one in a community. We think customers want both mobile and fixed in a community, and we have a mechanism in place whether we like it or not that works for determining cost for fixed carriers. For wireless carriers, the problem is that first, unlike wireline where you have an access line that goes to the home, with wireless—and you can measure how long that is, what the cost of it is and so on. With wireless, you don't have anything like that. There has been no structure in place from an auditing

perspective or accounting perspective, I should say, to keep track of all the costs and how you assign them to individual residences. You have a host of other issues such as how you value the spectrum and so on would go into determining cost, so I think what I would say to you is, if you want years of legal challenges, go to a cost-based system for wireless and you will be in court for a long time, but if you want a system that will work, go to a competitive bidding system.

Mr. WALDEN. But what you are suggesting is a competitive system for each type of service delivery, competitive for line if there is more than one carrier, or how do you—

Mr. TAUKE. For the time being we would stick with the cost-based system for wireline; for wireless, use the competitive.

Mr. WALDEN. The question I would have, if you can figure out the cost-based system for a wireline, are you suggesting that wireless can't figure out a cost-based system for delivering their service?

Mr. TAUKE. I am saying it is much harder for wireless because you don't have dedicated facilities. If you are talking about the donut, for example, and the area around it, you don't have dedicated facilities for the area around it so you can't figure out what the cost is for the area around it versus the area in the donut. Second point that I would make is that there has been a whole history of accounting systems set up to determine cost on the wireline side. We don't have anything like that on the wireless side. And so the challenge of putting a new system in place is very significant. So trying to come up with the cost will be tough, and as soon as you come up with a method, that is going to be challenged in court by the carriers.

Mr. WALDEN. Mr. Davis, should a universal service broadband program operate in the same manner as voice telephone service program or should it be structured differently?

Mr. DAVIS. I would structure the broadband system differently. I have learned from what we have done in the past. I would base the broadband grants on a bidding process. The low bidder for a particular geographic area would be the only carrier that would be subsidized. We would not subsidize mobile carriers and we would through the bidding process subsidize the low-cost carrier. The other thing I would do would make it a one-time grant, a grant necessary to build out the facilities at a certain service level and price but a one-time grant, not an ongoing subsidy.

Mr. WALDEN. My time is going to run out. Mr. Lubin, and then I have just one comment I want to make.

Mr. LUBIN. I just want to make the following observation, given AT&T spending \$17 billion to \$18 billion in terms of its capital budget, roughly two-thirds of it going for broadband and wireless, and the bottom line is that even with that amount of expenditure, we are going to have to figure out if you want to see broadband and wireless in high-cost areas, there is going to have to be some way to address that, and so in the broadband world, what we highlight is a competitive bidding process, one-time dollars, and only one time, underserved areas and one party gets it.

Mr. WALDEN. I thank you, and Mr. Chairman, I would just conclude by saying I would take disagreement with my ranking mem-

ber's position that water and sewer shouldn't be included in the reimbursement mechanism because I actually favor flush toilets over the outhouse. Thank you, Mr. Chairman.

Mr. BOUCHER. Thank you very much, Mr. Walden.

The gentleman from New York, Mr. Weiner, is recognized for 2 minutes.

Mr. WEINER. It is actually news to this member that you have indoor plumbing in your district.

Mr. WALDEN. Actually we do have both.

Mr. WEINER. Let me just say it strikes me, and to some degree this is an economic question for the citizens of my district. They are not underserved. They wind up, though, being donor citizens in this program. We want it to succeed. We want broadband access and we want telephone services available. But it does beg the question that the chairman mentioned in his line of questioning. It seems if you are running pipes, if you are trying to envision how we get information, how we get technology to these homes, that we should look at it in a holistic way, especially since you have this money in the stimulus bill and we have a focus on extending broadband. It seems that we make mistakes in this Congress when we try to envision technology as it is today and write legislation for it when in fact what we should be doing is trying to create as open enough of a process that new technologies can emerge.

You know, I think that the argument for the reverse auction is pretty powerful and I frankly don't see why you couldn't transition the present formula for wireline service to reverse auction as well. I mean, the ideas being we are trying to incentivize reduced costs and people think more efficiently and evolving technologies that might be able to do these things at lower cost. Let us just talk about the wireless side since that is the side that Mr. Tauke said would be the best for the reverse auction. Let me hear someone, and you can decide, someone make the best argument against the reverse auction model. Yes, sir.

Mr. CARLSON. Well, I tried to make some of that position against the reverse auction in my opening comments when I said that if you create a single winner system, what you will have will be a single wireless provider, which means that that single wireless provider would only provide the services that it chose to provide to the people.

Mr. WEINER. Why could you not have a reverse auction that the top two bidders win or why could you not have a rolling system whereby if someone during the—look, we did something similar at the advent of cable television in places like New York City where we said listen, it is difficult, it probably doesn't make a lot of sense to have three or four people digging trenches, so let us go ahead and give one the opportunity and then as a result you then agree if you do that, you are going to be subjected to a greater regulatory regime to make sure you provide quality service and the like.

Mr. CARLSON. Well, I think that, you know, it kind of takes you back, what are you trying to create as a nation and I think that the 1996 Act recognized that monopoly provision of services was not in the interest of the Nation in an era when technology was driving huge opportunities for innovation, and by opening up to innovation we would create an immense amount of national wealth.

Mr. WEINER. If I can interrupt here, but I mean, you are creating a straw man, are you not? Isn't the problem that we are trying to find areas that have zero service that yes, one service is definitely less advantageous than three or four but that is a false choice in the cases of most of these communities like those in Mr. Walden's district, is it not? Aren't we trying to first and foremost get a player to come in? Isn't that the purpose of the Universal Service Fund in the first place?

Mr. CARLSON. Well, we totally agree with that, that the program needs to have more targeting so that we direct more of the funds toward those areas that Congressman Walden spoke about which have no service today or very, very poor service, but we believe that that can be done within the context of the 1996 Act where there is competition. What we need is giving direction to the FCC to target the funds toward those areas while preserving competition.

Mr. WEINER. Right, but I think I see that. I guess the question that I am trying to get to here is, once you reach the point where you say all right, we want to target this community but we also want to do it in a way that we are incentivizing whoever comes in there to give us, meaning we, the taxpayer, the best possible deal to provide that service. It doesn't seem—I mean, I think we can almost stipulate to the idea that it doesn't seem we are getting the best possible value with the way this is structured presently. So if you have a model that incentivizes the players who are represented at that table and elsewhere to say you know what, I think I can go in there and provide this community service for an average whatever dollar per household and three other firms go in there and say I wonder if we can beat that, let us figure out how we can make it more efficient. We are operating now in an environment where we are trying to apportion scarce resources in a more efficient way, and I want to just caution you all, the challenge that you face is, you have lost confidence that this fund—people are wondering, and Mr. Barton is coming at it from one economic perspective, some of us come at it from a different one. If you don't figure out a way to start incentivizing the providers to do it in a more efficient way, we are going to lose complete confidence that this fund should exist at all, and I think one of the ways you do that is to say you know what, we are going to start making the marketplace work for us for a moment here, and I don't know if there is anyone else who wants to rise to the defense of the cost model here.

Can I ask one other question then? You know, voice is a relatively tiny part of what the larger conversation about information is really about at this point. I mean, most of it is data, video and everything else. Why shouldn't we just take the stimulus money, take this money, put it into a big pot and say let us figure out using a model that works, it may be the reverse auction model or another one and say let us just see what technology, what people come to us and say you know what, we can provide the full panoply of services. Why are we saying that you know what, let us create a fund to get this little sliver of the service to these communities. I think that if we are going to do this for the amount of money that we are investing, let us figure out a way to do it right. Let us try to really figure out a way to grow the marketplace for the services

that come along with broadband and everything else by putting everything in one basket and saying we are going to try to plow into these communities and give them the same opportunities that my constituents have. Why shouldn't we do that? Is that too ambitious? Yes, sir, American Telephone and Telegraph.

Mr. LUBIN. On one hand I would say what you are suggesting is a clever point, and the clever point is, let us see how much of the stimulus dollars get used in unserved areas, and so Chairman Boucher asked a question in the beginning, what is the linkage between the stimulus package and universal service. For me, the linkage is at some point however this \$7 billion gets disbursed over the 2-year period, hopefully that gets used to get more broadband deployed. When that happens, you are going to have less unserved areas. My only point here is that you have money. That money is going to be put out there relatively quickly. Find out, can it work, and it is a bidding process so it is a competitive bidding process. So you will see, you will have empirical information if it works. My guess, as you heard the other speaker say, \$7 billion is not enough. Maybe they are right, maybe they are wrong, but you will get empirical information once and for all. My own particular bias—and again, it is up to you. You are the policymakers that say if you want broadband and you are the policymaker that says do you want mobility, and if the answer is yes, then my particular belief is, you shouldn't be waiting, you should be figuring out how to create the sea change, figure it out in a way which is a coherent way, and if in fact this investment gets deployed and you have less unserved areas, that is a huge win and now you are going to have whatever remains and then you go from there.

Mr. WEINER. Thank you, Mr. Chairman.

Mr. BOUCHER. Thank you very much, Mr. Weiner.

The gentleman from Nebraska, Mr. Terry, is recognized for 5 minutes.

Mr. TERRY. Thank you, Mr. Chairman, and I want to thank the panel. This has been a great discussion and very helpful, I think. Every one of you have done an excellent job. A couple of points that I want to make is, first of all, we talk about advanced services, and frankly, advanced services a year ago are mainstream services today. I walked into the Verizon store with my wife trying to get her phone fixed for about the sixth time, but we won't go into that, but I saw their new VOIP system for homes. Very cool, nice monitor and we can do video on it and the whole nine yards. And now that is being sold with all the regular phones, a little bit more expensive right now. But the point is that in today's society what is advanced a few months ago or a few years is mainstream today and we have to think of it that way. I am pleased that Mr. Barton wants to treat the snake differently, and that is exactly the conclusion I came to is, how do we get ubiquitous rollout of broadband. Two advantages that this bill brings is, number one, we use the same pot of dollars that already exists without creating one new dollar on the taxpayer to get ubiquitous rollout within our rural America. Number two in that is that by making it mandatory, what we do is say for the Mr. Gaileys and Mr. Hales that represent really the sparsest areas, they have risen up and they provided without the help of universal service but just other revenues, they

have rolled out high-speed broadband to their customers but not every rural provider has and I am not sure every rural provider would unless that is a requirement to take, and so this is the way that we really ensure that all the universal service dollars provide that universal telecommunications services that is mainstream today. But my colleagues bring up a couple of decent points about that universal service should be used in an accountable way for the services of which it is intended, whatever that service may be as determined by this committee hopefully and not the FCC.

So Mr. Gailey and Mr. Hale, I want to ask you this general question of how should we go about ensuring that these tax dollars are properly used, what systems would you suggest to us—and by the way, I want to use the phrase here, that the analogy with the donut, make sure that you people that are serving that donut and not the hole, that the dough must go to the donut, OK? So Mr. Gailey first.

Mr. GAILEY. Well, the first thing I would like to say is that annually my company provides a cost—which tells them what the costs are that we have incurred in a year. That is submitted to USAC and then 2 years after we incur those costs we receive recovery on those costs. Annually we also go through an accounting audit by an independent accountant so we do have oversight over, in my opinion, my company today. Now, some of the stuff that is in the report from OIG has been contradicted in this report from USAC and we all know that some of the things that have been reported could be interpreted in one or two ways. Now, my company will go through a USAC audit in May so I can better address if there is any refinement needed to be made to that type of audit system but we haven't opposed an audit system per se. We just want to know what the rules are before we go through it.

Mr. HALE. We think that audits should be performed. The ways that they are being performed are the problems that we have with the current system. In the past—I haven't been in the business as long as some of our other folks here but in the past there are cost models and those things have been looked at. It is just very difficult. At some point it always came to embedded costs because our membership, we are not alike. Sometimes someone looks at rural and says we are all rural but we are a very diverse membership that serves a lot of different geographic areas, so it is difficult, but I mean, we would be open to discussing those things, I think, but it is very difficult to do that with a model or that type of thing.

Mr. TERRY. My time is up but I will predict that will be one of the things that Rick and I work on for our last draft.

Mr. BOUCHER. Thank you very much, Mr. Terry.

The gentleman from Illinois, Mr. Rush, is recognized for 7 minutes.

Mr. RUSH. Thank you, Mr. Chairman. First of all, Mr. Chairman, I want to just take a moment to welcome my friend from Chicago, Mr. Carlson, who is president of U.S. Cellular. We worked together on many issues and I am so glad to see you here as a part of this panel, and I want to extend a heartfelt welcome to you as well as to all the other panelists.

Mr. Chairman, this panel and this hearing will not touch upon an area that I am intensely interested in, and that is the area of

access to telephone services and the lessening of the burden that the cost of telephone services has been placed on low-income families, especially for those who are incarcerated. It is not the subject of this hearing, but Mr. Chairman, I do want us to at least take that up as a part of our future deliberations on the reforming of the Universal Service Fund. I do have a bill that I have introduced, H.R. 1133, the Family Telephone Connection Protection Act, that would require the FCC to regulate the rates so that they are reasonable. There are a lot of families who now are immensely overburdened because of the high cost that the telephone companies are charging incarcerated prisoners and their families to communicate with them, and so that will be a part of the discussion that I want to engage in in the future. It is not the subject right here.

Mr. BOUCHER. Would the gentleman yield to me for a moment?

Mr. RUSH. Yes, Mr. Chairman.

Mr. BOUCHER. I thank the gentleman for yielding. I share the gentleman's concern, and this is a matter that I also would like to look at and I look forward to working with the gentleman as we try to find a constructive way to address it.

Mr. RUSH. Thank you, Mr. Chairman, and with that I also just want to say hello to my friend, Charlie Sullivan, over there who has been a proponent of this for the last few years, for a lot of years, really.

Mr. Chairman, I do have a number of questions. First of all, I want to ask all the panel for the limited time that I have remaining, I want to ask the panel to answer this first question with either a response of yes or no. We can go down the line. The question, is broadband really a universal service? Is it so essential to everyday life like electricity was a century ago that we should ensure that all Americans have access to broadband? Either yes or no.

Mr. DAVIS. Yes.

Mr. LUBIN. Yes.

Mr. CARLSON. Yes, and I would add, it should be also mobile broadband.

Mr. GAILEY. I agree, yes, it should be.

Mr. TURNER. Yes, absolutely.

Mr. TAUKE. Yes.

Mr. GERKE. Yes.

Mr. HALE. Yes.

Mr. WALLSTEN. As the economist, I will say it depends. I think our resources are limited and I would much prefer to first see things like health care be available to everybody.

Mr. RUSH. All right. So after we get the health care, then we get the broadband. Is that what you are saying? All right.

Section 254 of the 1996 Telecom Act states that universal service policies shall promote, one, the availability of quality services at just, reasonable and affordable rates, and two, access to advanced telecommunications and information services in all regions of the Nation. Mr. Turner and the rest of the panel, do you think our universal service policies have achieved these goals?

Mr. TURNER. Not directly, sir. The problem is, is that the FCC has not updated its definitions of what services are supported to include broadband. However, through the magic of accounting, lots of



USF-supported carriers have actually used the money that they are getting to deploy broadband services so I think instead of doing this funny and tricky accounting we should just make it explicit and actually recognize that broadband is already being supported by the fund and let us make it explicit and let us cost it out and let us see what support would actually be needed to bring it into the areas that don't currently have it.

Mr. RUSH. Is there anybody else on the panel that wants to respond?

Mr. HALE. I think we are still working on the goal. I think there is a misconception that when we draw money from the fund the networks are paid for. Most of our companies or a lot of our companies are financing these networks through RUS loans and the amount of USF money they receive is based on the depreciation of that plant 2 years prior. So we still have debt service to do on the networks that we built for universal service, so I still think it is work in progress.

Mr. RUSH. Mr. Gerke.

Mr. GERKE. Yes, Congressman. I agree it is a work in progress. I do think we have shown that we can deliver universal voice and have done a good job on it. I think the targeting that is suggested in this bill to get the money where it needs to go is important. I am very encouraged by people understanding the connection to the carrier-of-last-resort obligation and making that part of the discussion. Broadband's inclusion I think is a big plus and can move us forward. I agree with those comments. And last, I would echo that we are out every day making investment in new plants based on an understanding of the USF support that is there. We have maintenance, we have enhancement, words that come from 254 that we have to live up to, and we have shareholders who are expecting that when we make those kind of investments in a stable enough environment that it is predictable for them. The lack of stability sometimes really creates a challenge for us to move forward. Thank you, Congressman.

Mr. RUSH. Does anybody else want to comment on this?

Mr. CARLSON. I know that many members here, you know, don't want to talk about expanding the program but there was one element of the program that was not properly implemented by the FCC, and that was when the cap was imposed there were a number of States, and I could list some of them that we are familiar with, North Carolina, Nebraska, Virginia, Tennessee, Michigan, Oregon and Washington and a smaller amount in Illinois, States that were unfairly treated in the way in which the cap was imposed, and fixing that would cost about \$350 million additional to the fund which would raise the contribution level from today 9½ percent to 10 percent, a very modest increase which would make it fair across America.

Mr. RUSH. Mr. Chairman, I see my time is up but I want to thank you for this opportunity.

Mr. BOUCHER. Thank you very much, Mr. Rush.

The gentleman from Illinois, Mr. Shimkus, is recognized for 5 minutes.

Mr. SHIMKUS. Thank you, Mr. Chairman. I was picking on you upstairs. You got the televised hearing. Climate change and the ending of the world did not, so kudos for you.

Mr. BOUCHER. Thank you. We deserve a few pats on the back here today.

Mr. SHIMKUS. You have more people at the panel by two. I have been bouncing back and forth. I apologize for that. I know the chairman would like to but he has to manage the chair here.

Rural America, many of you know my district. We have benefited from USF. There are challenges. Let me just ask, as we look at USF funds to facilitate broadband deployment, does wireless broadband have a role, a practical application, and if we can just go quickly Mr. Davis through Mr. Wallsten.

Mr. DAVIS. I think the broadband support should be technology-neutral, so I think that once we determine what the speed, the level of service and the price should be, it shouldn't depend—that any technology should be available.

Mr. SHIMKUS. Thank you.

Mr. LUBIN. I also think it should be technology-neutral but I also think clearly the policymakers, namely yourselves, need to decide whether mobility, advanced mobility is important as well as fixed broadband, and if they are, then you need to figure out what is a rational plan for both.

Mr. SHIMKUS. Because I have successfully tried to stay on the fence in this process so far so I am trying to figure it all out.

Mr. Carlson.

Mr. CARLSON. Yes, I think both are important. I think the speed that is capable in a wired system is higher than it is in a mobile system so that target speed for mobility should be set a level that is different than the target speed for wireless.

Mr. SHIMKUS. Mr. Gailey.

Mr. GAILEY. I would agree with Mr. Carlson that wired can provide bigger pipes to a residence. The mobile can provide a smaller pipe that you can carry with you to different locations.

Mr. SHIMKUS. Keep going.

Mr. TURNER. I think they both have their utility. Wireless is definitely going to play a role in the areas that are most extremely high cost to service but wireless will always have the advantage of having more capacity and not being a shared medium. So I think we really need to look at that. I am not sure at this point that checking your Facebook while driving 70 miles down the road is an essential service that should be subsidized.

Mr. SHIMKUS. You haven't talked to my son yet.

Mr. TAUKE. Just to be clear, I think it should be fixed versus mobile, and fixed should be reimbursed as it is today and generally we call that wireline but it also can be fixed wireless, and the other is mobile and I think Americans today see mobile as essential.

Mr. SHIMKUS. Well, I think that is a good point because I tell you, in a rural community that has a couple hundred residents, wire, hooking it up versus have a tower that is fixed wireless is a different ballgame than checking your Facebook as you are driving down the road.

Mr. Gerke.

Mr. GERKE. Yes, I think it is real important as mentioned before to define exactly the criteria you are going after. I think generally the wireline plan is what is going to get you there and then making sure that that obligation is to serve the entire donut that you don't just serve part of it but you have that carrier-of-last-resort obligation to serve all of it.

Mr. SHIMKUS. And being in rural America, there are problems with line of sight and terrain and stuff, and I understand that also.

Mr. Hale.

Mr. HALE. I believe it should be technology-neutral. I don't think we can imagine tomorrow's technology, what we are going to ask to use for broadband deployment. As long as the minimum speeds and those standards are high enough to support what we need for the future of the country, technology shouldn't play a role.

Mr. SHIMKUS. Mr. Wallsten.

Mr. WALLSTEN. I mean, once you decide what type of service it is that you want to guarantee, then it should be, as everyone has said, basically be technology-neutral. I think the key is to make sure that you don't define the service in a way that arbitrarily benefits one type of provider just in order to benefit that provider.

Mr. SHIMKUS. Thank you. Two final questions just to one panelist, Mr. Chairman, if I may.

Mr. Turner, Ranking Member Barton has a credible beef of some of the abuse of the USF and that is going to cause a lot of challenge for us in this committee. Have you identified in the way high-cost funding is currently distributed to wireline or wireless carriers or what excesses have you identified?

Mr. TURNER. Well, I think one of the most important things that hasn't come up in this hearing is, is a lot of these rural carriers are supported based on historical cost when the most efficient way of supporting them should be a forward-looking cost if we are going to use cost models. The often talked about \$970 million in overpayments identified by the FCC OIG, it is not that there was actually \$970 million in overpayments, it is that these companies didn't keep good historical records of their costs and the audit triggered that being an overpayment. I think going forward with forward-looking costs is the best way to go. It is economical. I certainly would like to be able to recover the historical cost for my house that I bought 2 years ago but unfortunately that is not what the market will bear today.

Mr. GERKE. Congressman.

Mr. BOUCHER. Mr. Gerke, go ahead.

Mr. GERKE. I just want to make sure I get on the record, we absolutely encourage transparency and we are willing to make sure that we do whatever is necessary so that you can see that these dollars are spent exactly the way they should be. In 2008 we had seven audits. No material weakness, deficiencies. We weren't penalized, no consent agreements. There was \$92,000 more that should have been paid to us. There was \$18,000 more that we should have paid in, so net we were shorted \$74,000. We are not looking for that. But it shows up as a \$110,000 mistake the way it is counted, and so I don't know how much of those eight audits go into the 23 percent but I suspect whatever those dollars were, they actually were in our favor and the costs we incur, we want

transparency, let us do it in a manner that doesn't drive costs that way, way exceed the numbers that we are talking about. Thank you very much.

Mr. SHIMKUS. Thank you, Mr. Chairman. I would just end by saying, I wonder how much the actual audits cost.

Mr. BOUCHER. Thank you very much, Mr. Shimkus, and I am glad you raised the question of the legitimacy of the audit itself because I think there are some substantial questions about the methodology that it used, and that is a matter into which we will inquire further at the proper time.

The gentleman from North Carolina, Mr. Butterfield, is recognized for 5 minutes.

Mr. BUTTERFIELD. Thank you, Mr. Chairman, for convening this very important hearing and I will try not to consume my entire 5 minutes. Like John Shimkus, I would like to apologize to you for being late for your hearing. We have been bouncing between two subcommittees both in this building, but thank you very much. I thank the witnesses for your testimony today.

Mr. Chairman, I look forward to working with you as you chair this committee. You and I are friends and we have similar Congressional districts and I pledge to you my complete support as we go forward with this subcommittee.

Mr. Chairman, according to a recent analysis from the 2007 American Community Survey, my district in eastern North Carolina now has the fourth lowest median household income out of all 435 Congressional districts in the House. That figure along with the sprawling, very rural geographic characteristics of my Congressional district make issues like this very important to me. While there is no question that an escalating contribution factor is rightfully a concern for carriers and policymakers and certainly the FCC, I remain confident that a sensible resolution can be achieved that recognizes and upholds the universal service concept, makes advanced telecommunication service including broadband a part of the universal service scope and oppose those principles outlined in section 254, and so thank you very much for convening this hearing today. I thank the witnesses for coming including my good friend, Tom Gerke, who represents Embarq, who is a good corporate citizen in my district, and thank you for all that you do.

I have one brief question and then I will close. Let me address this to my friend from Verizon, the former member of this body, Mr. Tauke. There have been proposals floated to allow the lifeline and linkup program to help lower-income people purchase computers so they can access the Internet. There were also proposals to allow the program to pay for broadband. Are these good ideas? Should the government be looking at other ways to increase computer ownership and subsidize monthly broadband access for low-income consumers?

Mr. TAUKE. First, on the issue of subsidizing broadband access for low-income consumers, we believe it is appropriate to look at the feasibility of having a lifeline-type program for broadband access. We don't have a specific proposal. I think there are issues that need to be addressed relating to it. But I think that it is something worth looking at and also that it should be done at the federal level since broadband services are federally regulated.

On the issue of computers, I don't think we would look to use the Universal Service Fund to support computers because the Universal Service Fund is paid for, as Mr. Carlson noted, is really consumers' money that we collect and it is consumers of communication services, so while we would feel comfortable using that funding for communication services, I don't know that we would agree that it should be used for computers. However, if you ask my boss, the CEO of Verizon, what could we do to encourage broadband deployment, he would say the most important thing you can do is to increase demand and the most important way to increase demand is to get a computer in the hands of every kid in America. So I think we recognize that that is very valuable.

Mr. BUTTERFIELD. Thank you. Would AT&T associate itself with those comments in substance?

Mr. LUBIN. Yes. In fact, AT&T has been looking and recently shared some thoughts in terms of how to potentially have a lifeline program on broadband and we would be glad to share that with you.

Mr. BUTTERFIELD. Thank you very much.

And speaking of association, Mr. Chairman, I also want to associate myself with the comments of Chairman Rush a few minutes ago about H.R. 1133. That is a very significant piece of legislation. Before I had a life in this body, I served as a judge and I received very heartbreaking letters from families about the expensive cost of long-distance phone calls for their loved ones in prison. It is an issue that we need to talk about and come to a sensible solution.

I yield back.

Mr. BOUCHER. Thank you very much, Mr. Butterfield, and I share the concerns you and Mr. Rush have expressed about that matter as well.

I want to ask unanimous consent that there be included in the record a written statement from the Mercatus Center at George Mason University and a written statement of testimony from the American Homeowners Grassroots Alliance. Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. BOUCHER. The record of this hearing will remain open for a reasonable period until members can submit written questions to our panel of witnesses. When they are received by you, I hope you will respond promptly, and with the chair's thanks for what has been, I think an interesting and stimulating discussion today. We appreciate your being with us and sharing your very useful information.

This hearing is adjourned.

[Whereupon, at 12:35 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

Statement of  
Representative John D. Dingell  
Committee on Energy and Commerce  
Subcommittee on Communications, Technology, and the Internet  
Hearing on "The Universal Service Fund: Reforming High Cost Support"

March 12, 2009

Thank you, Mr. Chairman, for holding today's hearing. For some years now, we have all been aware that thanks to the explosive growth in the use of the Internet and wireless services for communications, the long distance revenues of telecommunications companies subject to universal service fees have declined, causing an increase in the assessment on consumers' bills to allow those companies to meet their required universal service contributions. This strikes me as being at odds with the basic principle of our Nation's communications policies, namely to provide high-quality telecommunications services at affordable rates to all Americans, regardless of geography or income. Consequently, we, the Congress, must consider ways to restructure and improve the Universal Service program.

As I have suggested in the past, I believe that three principles should govern our efforts in this matter. First, all providers of telecommunications should contribute equitably to support universal service. Second, all communications – and not simply *interstate* communications – should contribute to the Universal Service Fund. I find it nonsensical that the FCC should have to determine whether communications are *interstate* or *intrastate* in today's world of packetized networks and bundled service offerings. Finally, we should not play favorites with new communications technologies when it comes to Universal Service Fund contribution requirements. This will have the undesired effect of shortchanging the Fund, as well as picking winners and losers in the marketplace.

With these principles firmly in mind, we must also consider how best to protect the integrity of the Fund. I have long held that the Fund, as with other universal service programs, must be subject to rigorous accountability. To remain worthy of the taxpayers' trust, universal service expenditures must have tough accountability measures, including regular audits and detailed reporting requirements, both of which will serve to ensure that the American public's money is being used for its intended purposes.

Lastly, we must reflect upon whether the Fund should be used for broadband infrastructure, a critical component in communities' economic development. This is of particular importance in light of the funds allocated toward broadband infrastructure development in the American Recovery and Reinvestment Act. We would do well to consider if and how the Fund could subsidize such development in a complementary manner, all while doing so without placing undue burdens on consumers and jeopardizing the affordability of basic telephone services, particularly for rural and working poor Americans.

Mr. Chairman, I thank you for your courtesy and look forward to a congenial process of bipartisan debate as we contemplate legislation to reform the Universal Service Fund. This manner of collaboration has always been a hallmark of the Committee's finest work. On that note, however, and on a somewhat related matter, I would register my discomfort with the Administration's budget proposal to assess new spectrum license fees on communications companies. It is my firm belief that any such new fees should be the result of the work of this Subcommittee and the Full Committee. Good policy stems from thorough consideration by jurisdictionally relevant bodies.

Thank you, and I yield back the balance of my time.

**MERCATUS CENTER**  
GEORGE MASON UNIVERSITY

**Performance Measures for the High Cost Universal Service Fund**

Written Testimony of  
Jerry Ellig, Ph.D., Senior Research Fellow  
Mercatus Center at George Mason University

Submitted to the  
U.S. House Committee on Energy and Commerce  
Subcommittee on Communications, Technology and the Internet

March 12, 2009

Mr. Chairman and Members of the Committee:

Thank you for the opportunity to enter written testimony into the record of the subcommittee's hearing on reforming the High Cost Universal Service Fund.

I am a research fellow with the Mercatus Center, a 501(c)(3) research, educational, and outreach organization affiliated with George Mason University.<sup>1</sup> For the past several years, much of my research has focused on reform of the high-cost universal service funds, both on the federal and state levels.<sup>2</sup> I have submitted a series of comments based on this research in various Federal Communications Commission (FCC) universal service reform proceedings.<sup>3</sup> In addition, my colleagues and I at the Mercatus Center have extensive experience developing and critiquing government agencies' performance measures as a result of our work on government accountability. In 2009, we will publish our tenth annual *Performance Report Scorecard*, which assesses the quality of annual

<sup>1</sup> This testimony reflects only the views of the author and does not represent an official position of George Mason University.

<sup>2</sup> Jerry Ellig, *Universal Service Reform: Start With Accountability*, MERCATUS ON POLICY (July 2008), <http://www.mercatus.org/PublicationDetails.aspx?id=20648>; Jerry Ellig & Joseph Rotondi, *Outcomes and Alternatives for Universal Telecommunications Services: A Case Study of Texas*, 12 TEXAS REVIEW OF LAW & POLITICS 1 (2007), <http://www.mercatus.org/PublicationDetails.aspx?id=16094>; Jerry Ellig, *Costs and Consequences of Federal Telecommunications and Broadband Regulations*, 58 FEDERAL COMMUNICATIONS LAW JOURNAL 17 (Feb. 2006), <http://www.mercatus.org/PublicationDetails.aspx?id=17810>; Jerry Ellig and James Taylor, *The Irony of Transparency: Unintended Consequences of Wireless Truth-in-Billing*, 19 LOYOLA CONSUMER LAW REVIEW 43 (2006), <http://www.mercatus.org/PublicationDetails.aspx?id=17760>.

<sup>3</sup> The most recent, which includes references to prior comments, is Jerry Ellig, *Public Interest Comment on Intercarrier Compensation and Universal Service*, WC Docket No. 05-337 et. al. (Nov. 26, 2008), <http://www.mercatus.org/PublicationDetails.aspx?id=25484>.



performance and accountability reports produced by the 24 Cabinet and Chief Financial Officers' Act agencies that account for the vast majority of all federal spending.<sup>4</sup> As a result of this research, we have actively participated in the FCC's proceedings on management of the universal service fund.<sup>5</sup>

### The Importance of Outcome Measures

Everyone has a favorite proposal for reforming the high-cost fund: reverse auctions, new cost models for awarding subsidies, subsidy caps, subsidies for broadband, numbers-based contributions to the universal service fund, and so forth. I would like to bring to the subcommittee's attention to one critical element that is compatible with, and critical to, any proposed reform: establishment of outcome measures for the high-cost programs.

It's not just a good idea; it's the law. The Government Performance and Results Act of 1993 (GPRA) requires federal agencies to produce strategic plans with performance measures, annual performance plans with performance goals, and annual performance reports that measure progress toward those goals. Measures are supposed to track the agencies' "outputs, service levels and outcomes."<sup>6</sup>

Outcomes are the actual benefits created, or harms avoided, for citizens. "*Outcomes are not what the program did but the consequences of what the program did.*"<sup>7</sup> Outcome measurement is crucial if congressional and FCC decisions are to be based on actual evidence of the effects of universal service programs.

Despite GPRA's mandate, the Government Accountability Office (GAO) reported in July 2008 that the FCC still had not developed outcome measures for universal service programs:

In particular, prior GAO reports indicate that best practices include developing goals and measures that address important dimensions of program performance, developing intermediate goals and measures, and developing goals to address mission-critical management problems. Yet, the FCC has not established long-term or intermediate performance goals and measures. Additionally, OMB noted that performance measures

<sup>4</sup> The ninth annual *Scorecard* was released in May 2008 and is available on the Mercatus Center web site. See Maurice McTigue, Henry Wray, and Jerry Ellig, 9<sup>TH</sup> ANNUAL PERFORMANCE REPORT SCORECARD: WHICH FEDERAL AGENCIES BEST INFORM THE PUBLIC?, (May 2008) available at <http://www.mercatus.org/PublicationDetails.aspx?id=16102>.

<sup>5</sup> Maurice McTigue and Jerry Ellig, *Public Interest Comment on Performance Measures for Universal Service Programs*, WC Docket 05-195 (October 17, 2005), <http://www.mercatus.org/PublicationDetails.aspx?id=17826>; Maurice McTigue and Jerry Ellig, *Ex Parte Comment on Performance Measures for Universal Service Programs*, WC Docket 05-195 (Jan. 26, 2006), <http://www.mercatus.org/PublicationDetails.aspx?id=17804>; Maurice McTigue and Jerry Ellig, *Reply Comment on Comprehensive Review of the Universal Service Fund Management and Oversight*, WC Docket 05-195 (Dec. 15, 2008), <http://www.mercatus.org/PublicationDetails.aspx?id=25580>.

<sup>6</sup> GPRA Sec. 1115. Emphasis added.

<sup>7</sup> Harry P. Hatry, Urban Institute, *PERFORMANCE MEASUREMENT: GETTING RESULTS* (1999) at 15. Emphasis added.

should reflect desired outcomes, which describe the intended results of the program. Yet, FCC data collection efforts focus on program outputs, such as the number of requests for support payments, which describe the level of activity.<sup>8</sup>

A 2007 FCC decision adopted some performance measures for universal service programs, but it did not adopt outcome measures.<sup>9</sup> An FCC Notice of Inquiry in September 2008 sought further comment on performance measures for all of the universal service programs.<sup>10</sup> I do not know if the FCC's new management will choose to follow up this Notice of Inquiry with action.

Unfortunately, GPRA has no teeth. The law says agencies must develop outcome measures for all major programs, but the law has no automatic penalties if they decline to do so.<sup>11</sup> Ultimately, it is up to the congressional oversight and appropriations committees to motivate agencies to produce outcome information by making it clear that they want outcome information. That's where this subcommittee has the opportunity to play a proactive and highly productive role.

#### **Suggested Outcome Measures for the High-Cost Program**

The plain language of the Telecommunications Act states that consumers in rural and high cost areas are to have "access" to telecommunications and information services that are "reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas."<sup>12</sup> Outcome measures that focus on access to service at reasonably comparable rates should receive broad support among policy makers who are genuinely interested in ensuring that universal service programs promote affordable access to communications services. The Telecom Act's language implies that performance measures should answer two questions:

- (1) Do the targeted customers have access to the desired services?
- (2) Are the prices of these services for rural customers "reasonably comparable" to urban rates?

<sup>8</sup> U.S. Government Accountability Office, TELECOMMUNICATIONS: FCC NEEDS TO IMPROVE PERFORMANCE MANAGEMENT AND STRENGTHEN OVERSIGHT OF THE HIGH-COST PROGRAM (June 2008) at 5.

<sup>9</sup> Federal Communications Commission, *In the Matter of Comprehensive Review of the Universal Service Fund Management, Administration, and Oversight*, REPORT AND ORDER (Adopted Aug. 22, 2007), at para. 55.

<sup>10</sup> Federal Communications Commission, *In the Matter of Comprehensive Review of the Universal Service Fund Management, Administration, and Oversight*, WC Docket 05-195, NOTICE OF INQUIRY (Released Sept. 12, 2008).

<sup>11</sup> Jerry Brito and Jerry Ellig, "Toward a More Perfect Union: Regulatory Analysis and Performance Management," *Florida State University Business Review* 8 (forthcoming), available at <http://www.mercatus.org/PublicationDetails.aspx?id=16218>.

<sup>12</sup> §254 (b) (3).

### 1. Access

Measures like the number and percent of homes where the service is available would demonstrate how many households in a given area are able to subscribe to the applicable services if they so choose. The concept of measuring access should not be a strange one to the FCC. The FCC measures the deployment of broadband Internet as the percentage of cable and telephone customers who have access to high-speed service<sup>13</sup> and also releases an annual report that provides maps that indicate where wireless service is available to customers.<sup>14</sup>

For the high-cost program, however, the FCC counts subscribers and subscribership rates, rather than directly measuring availability. But access and subscribership are not the same thing.

Subscribership clearly requires access. Very high subscribership rates imply that telephone service is available virtually everywhere in the United States. Exceptions may be certain high-cost and rural areas if the requisite infrastructure is not in place.

However, one may have access to a service and still not choose to subscribe. A seaside community with many vacation homes, for example, might show a low subscribership rate for wireline phone service because many homeowners simply bring their wireless phones with them when vacationing. Some families might regard television as a more useful source of information than a high-speed Internet connection. As a result of such consumer decisions, the penetration rate for a service might be low even though it is available. If the service is available at reasonably comparable rates, then the policy goals of the Telecommunications Act have been achieved even if some or many households choose not to subscribe. For this reason, accurate performance measures must track access, not just subscribership.

### 2. Price

The FCC should determine whether the high-cost program facilitates service in high-cost areas at rates that are “reasonably comparable” to those in urban areas. To determine whether rural rates are reasonably comparable to urban rates, the FCC needs to measure rates. A simple evaluation might compare rates in rural areas to rates in urban areas. The FCC would need to decide how close the rural rate must be to the urban rate to qualify as reasonably comparable. Only after defining this measure could the FCC determine to what extent the universal service program has achieved the goal of making rural rates reasonably comparable to urban rates.

---

<sup>13</sup> Federal Communications Commission, HIGH-SPEED SERVICES FOR INTERNET ACCESS: STATUS AS OF JUNE 30, 2007 (2008) at tbl. 14.

<sup>14</sup> Federal Communications Commission, ANNUAL REPORT AND ANALYSIS OF COMPETITIVE MARKET CONDITIONS WITH RESPECT TO COMMERCIAL MOBILE SERVICES 134-184 (January 28, 2008).

A simple rural/urban rate comparison might not be a perfect measure of comparability because urban and rural incomes can differ significantly. A more accurate measure might be to compare the rural price/income ratio to the urban price/income ratio. Whether the additional accuracy introduced by using the ratio of rates to income is worth the additional difficulty is, of course, an open question.

For wireline telephone service, the FCC can no longer presume that longstanding state-regulated rates in rural areas are “reasonably comparable” to urban rates. Joseph Rotondi and I recently completed a study of universal service in the state of Texas that illustrates this point.<sup>15</sup> In Texas, regulation historically kept most rural phone rates for basic local service below urban rates and below economic measures of long-run cost. A 2007 evaluation by the Texas Public Utility Commission (PUC) revealed that all basic local residential rates of the largest incumbent were below the national average urban rate of \$14.53.<sup>16</sup> No basic local rates of the four largest incumbents exceeded the national average urban rate by more than \$1.50.<sup>17</sup> Only six of the 54 smaller incumbents had any basic local residential rates exceeding the national average urban rate.<sup>18</sup> Basic local residential rates in Texas had not changed since 2000 or earlier. The Texas Public Utility Commission found that state subsidies kept rural rates reasonable—but also hinted that higher rates for basic local telecommunications service might also be considered reasonable. The PUC noted, “The preservation of existing BLTS [basic local telephone service] rates, some of which have been in effect for decades, does not necessarily mean that existing rates are still reasonable.”<sup>19</sup> In April 2008, the Texas PUC approved a settlement that reduces universal service subsidies to the four largest carriers and allows them to raise rates on subsidized lines by a few dollars per month.<sup>20</sup>

As the Texas example demonstrates, the FCC cannot presume that universal service subsidies accomplish their statutory objectives simply because they enable phone companies in rural areas to charge regulated rates that are lower than they would be in the absence of subsidies.<sup>21</sup> The FCC needs to define what “reasonably comparable” means

<sup>15</sup> Ellig & Rotondi, *supra* note 2.

<sup>16</sup> Texas Public Utility Commission, REVIEW AND EVALUATION OF THE TEXAS UNIVERSAL SERVICE FUND PURSUANT TO PURA SECTION 56.029 28 (2007) at tbl. 6.

<sup>17</sup> *Id.*

<sup>18</sup> *Id.* at tbl. 7.

<sup>19</sup> *Id.* at 24.

<sup>20</sup> Public Utility Commission of Texas, Docket No. 34723, Motion for Approval of the Unanimous Settlement Agreement (April 8, 2008). (Accessible through the PUC’s electronic Interchange filing retrieval system.)

<sup>21</sup> A traditional justification for keeping rural rates below urban rates is that rural customers have fewer people in their local calling areas, and hence they are more likely to pay substantial long-distance charges. Lower local rates help compensate for the higher long-distance charges. Long-distance service, however, is priced much differently than it was when current local-rate structures were put in place. All-distance plans available from both wireline and wireless carriers offer long-distance calling at zero incremental cost per call. Even when purchased separately, long-distance is now widely available for a few cents per minute. Clearly, the size of the long-distance penalty paid by rural subscribers has fallen significantly. Hence, it is much more difficult to justify the idea of keeping rural rates below urban rates to compensate for rural residents’ higher long-distance costs.

and determine whether the regulated local rates in rural areas are reasonably comparable to urban rates.

### **Program Evaluation**

The most informative outcome indicators isolate the government agency's direct effect on the outcome from other causes and indicate how much of the change in the outcome was due to the government's action. When such an indicator cannot be constructed, it is still often possible to assess the effects of government actions through field trials or statistical analysis that attempts to separate the effects of various factors.<sup>22</sup>

This is the role of program evaluation. A program evaluation is defined as "an assessment, through objective measurement and systematic analysis, of the manner and extent to which Federal programs achieve intended objectives."<sup>23</sup> GPRA requires program evaluation. Agency strategic plans must identify program evaluations used to reevaluate goals and objectives and set forth a schedule of program evaluations.<sup>24</sup> The agency's annual performance report must summarize the results of program evaluations concluded in that fiscal year.<sup>25</sup>

To evaluate the success of universal service programs, it is not enough that the FCC measure access and rate comparability. At best, these are intermediate outcomes. The ultimate outcomes of value to citizens are the economic, social, educational, health, and cultural outcomes that affordable access to communications services is assumed to produce. The FCC or an independent evaluator, such as GAO, should bear responsibility for assessing whether access and rate comparability do indeed produce the public benefits legislators hope they will produce. Congress could enumerate these anticipated benefits in legislation, or the subcommittee could enumerate the benefits in a request to the FCC or GAO.

Logically, access at comparable rates cannot create public benefits unless it results in an increase in subscription or connectivity above the levels that would exist in the absence of the universal service programs. Program evaluation of outcomes, therefore, should be based on the following causal chain:

1. The high-cost program causes basic local telecommunications service to be available at reasonably comparable rates;
2. Availability at reasonably comparable rates causes an increase in subscription; and
3. Increased subscription generates economic or social benefits for the public.

<sup>22</sup> Office of Management and Budget, What Constitutes Strong Evidence of a Program's Effectiveness?, [http://www.whitehouse.gov/omb/part/2004\\_program\\_eval.pdf](http://www.whitehouse.gov/omb/part/2004_program_eval.pdf) (last visited Mar. 27, 2008).

<sup>23</sup> 31 U.S.C. § 1115(f)(2).

<sup>24</sup> 5 U.S.C. § 306.

<sup>25</sup> 31 U.S.C. § 1116(d)(5).

Accurate evaluation requires a determination of *how much* of each outcome was actually caused by the high-cost program. For example, a local economic boom created when a rural area becomes an “outer suburb,” retirement haven, or tourist destination might increase the availability or reduce the price of telecommunications services, but this improvement was not caused by universal service programs. Similarly, a recession or economic recovery might affect the number of households subscribing to telephone service in rural areas, and these changes in subscribership should not be attributed to the high-cost program.

The most accurate way of determining causality is to compare the actual outcome to the outcome that would have occurred in the absence of the program. In some cases, this comparison can be accomplished by examining the outcome measure before and after the program is adopted or comparing outcome measures across similar places that have different levels of program funding. One can roughly gauge the effect of universal service programs on rate comparability, for example, by comparing subsidized prices in rural areas to the prices that would prevail if the service in those areas had to cover its full costs.

Such relatively simple comparisons, however, are not always possible or illuminating—especially if a program is nearly universal or has been in existence for a long time. Careful counterfactual analysis, often based on econometrics or on careful selection of “treatment” and “control” groups, may be necessary.

Determining the effects of universal service programs on availability of service, for example, may require fairly sophisticated analysis. For each program, the challenge is ascertaining whether infrastructure to provide the service would be available in the absence of the subsidy. Ascertaining whether infrastructure would have been available in the absence of the program is not the same thing as ascertaining whether the infrastructure that actually exists would have been available. In some rural areas, wireline telephone service might not exist in the absence of subsidies, but a less expensive wireless solution might have been deployed instead.

After analysts have calculated how the high-cost program has affected service availability and rate comparability, they can estimate how these changes affect subscribership by drawing on a voluminous economic literature that assesses the price sensitivity of consumer demand for communications services.<sup>26</sup>

---

<sup>26</sup> Robert W. Crandall and Leonard Waverman, WHO PAYS FOR UNIVERSAL SERVICE? (2000) at 47; Michael H. Riordan, *Universal Residential Telephone Service*, in 1 HANDBOOK OF TELECOMMUNICATIONS ECONOMICS 423, 431 (Martin E. Cave et al. eds.) (2002); See Jerry Hausman, *Cellular Telephone, New Products, and the CPI*, J. BUSINESS & ECON. STAT. 188, 191 (1999) (estimating a demand elasticity of approximately -0.5 with 1988-1993 data); Jerry Hausman, *Efficiency Effects on the U.S. Economy from Wireless Taxation*, 53 NATIONAL TAX JOURNAL. 733, 738 (2000); Mark Rodini et al., *Going Mobile: Substitutability Between Fixed and Mobile Access*, 27 TELECOMMUNICATIONS POLICY 457, 470 (2003); Christopher Garbacz & Herbert G. Thompson, Jr., *Universal Telecommunication Services: A World Perspective*, INFO.ECON. & POLICY 495 (2005), tbl. 5; . J. Gregory Sidak, *Is State Taxation Of The Wireless Industry Counterproductive?* Criterion Econ.

The final step is to ascertain how the change in subscribership affects overall benefits to the public. Here again, analysts could build upon existing economic research. Several economists have attempted to measure whether the addition of subscribers to the telephone network generates spillover benefits for subscribers who were already on the network.<sup>27</sup> Others question whether these benefits are substantial, or whether universal service programs are necessary to achieve them.<sup>28</sup> In short, this is hardly a new or unexplored area of inquiry.

### Conclusion

An evidence-based approach to high-cost universal service requires objective analysis to determine whether, and to what extent, the high-cost program actually causes the intended outcomes—the results that citizens value and that (presumably) motivated the program. Decisions that are not guided by evidence of actual effects are best characterized as “faith-based” initiatives. In the absence of actual evidence, decision makers simply take on faith that undertaking activity X will produce result Y.

As expressed in the 1996 Telecommunications Act, Congress wants residents of rural areas to have access to services reasonably comparable to those in urban areas, at reasonably comparable rates. Yet the FCC has never measured how many more people have service because of the universal service subsidies, nor has it measured the effect of the subsidies on rates. Regulators have not assessed the effects of high-cost subsidies on subscribership or on the broader social benefits increased subscribership is supposed to create.

To promote evidence-based decision making in regard to the high-cost fund, Congress should require the FCC to measure the outcomes articulated in the Telecommunications Act: access to reasonably comparable service and reasonably comparable rates. Legislators should also require the FCC or independent analysts to:

1. Analyze how much of a change in these two outcomes the high-cost fund has caused,
2. Assess how this change in access and price has affected subscribership, and

---

L.L.C., 19 (2003), [www.criterioneconomics.com/docs/sidak\\_pacific\\_research.pdf](http://www.criterioneconomics.com/docs/sidak_pacific_research.pdf); Thomas W. Hazlett & Roberto E. Munoz, *A Welfare Analysis of Spectrum Allocation Policies*, AEI Brookings Joint Center For Regulatory Studies, related pub'n 04-18, available at

<http://www.aeibrookings.org/admin/authorpdfs/page.php?id=1024>; Gary Madden & Grant Coble-Neal, *Economic Determinants of Global Mobile Telephony Growth*, 16 *Info. ECON. & POL'Y* 519, 531 (2004).

<sup>27</sup> See, e.g., estimate of the network externality cited in Robert W. Crandall, *AFTER THE BREAKUP: U.S. TELECOMMUNICATIONS IN A MORE COMPETITIVE ERA* 137-38 (1991).

<sup>28</sup> See A.H. Barnett and David L. Kaserman, *The Simple Welfare Economics of Network Externalities and the Uneasy Case for Subscribership Subsidies* *J. OF REG. ECON.* 13 (1998); Stanley J. Liebowitz and Steve Margolis, *Network Effects*, in M. Caves, S. Majumdar, and I. Vogelsang (eds.), *HANDBOOK OF TELECOMMUNICATIONS ECONOMICS* 76-94 (2002).

3. Estimate how this change in subscribership has affected the economic, social, and cultural opportunities available to rural households or other broad social benefits the high-cost fund is supposed to promote.

Only then can decisions about proposed reforms be made on the basis of knowledge rather than faith.





**American Homeowners Grassroots Alliance**

*Representing the nation's 70 million homeowners*

6776 Little Falls Road, Arlington, Virginia 22213 703-536-7776 fax 703-536-7079  
www.americanhomeowners.org AHGA@americanhomeowners.org

**Testimony of the  
American Homeowners Grassroots Alliance**

Submitted to the  
Subcommittee on Communications, Technology, and the Internet  
For the hearing on

**Universal Service: Reforming the High-Cost Fund**

March 12, 2009

The American Homeowners Grassroots Alliance (AHGA) is a national consumer advocacy organization serving the nation's homeowners. Its sister organization, the American Homeowners Foundation (AHF), is a 501(c)3 education and research organization. Both focus on issues that have significant economic impact on the nation's 70 million+ homeowners.

Telecommunications is an area of growing importance and complexity to American homeowners. Voice communications remain extremely important to them, and the means by which voice can be delivered has proliferated. In addition data communications has become increasingly important to them as well, and high speed data communications provides numerous additional potential benefits, including the expansion of teleworking, IT-based healthcare, Internet commerce, and much more. Adding to the complexity is the continuing convergence of voice and data technologies, and the likelihood that new information and communications technologies likely to be introduced in the future will offer new choices, benefits, and challenges. All of these developments argue for taking a new and much broader view of the goals and tools for reforming the High-Cost Fund.

In light of these developments, reforming the High-Cost Fund will be a particular challenge. A part of the Universal Service Fund (USF) it was created by the United States Federal Communications Commission (FCC) in 1997 to meet the goals of Universal Service as mandated by the Telecommunications Act of 1996. The goals of Universal Service are:

- To promote the availability of quality services at just, reasonable, and affordable rates,
- To increase access to advanced telecommunications services throughout the Nation,
- To advance the availability of such services to all consumers, including those in low income, rural, insular, and high cost areas at rates that are reasonably comparable to those charged in urban areas.

The 1996 Act states that all providers of telecommunications services should contribute to federal universal service in some equitable and nondiscriminatory manner; there should be specific, predictable, and sufficient Federal and State mechanisms to preserve and advance universal service; all schools, classrooms, health care providers, and libraries should, generally, have access to advanced telecommunications services; and finally, that the Federal-State Joint Board and the FCC should determine those other principles that, consistent with the 1996 Act, are necessary to protect the public interest.

The 1996 Act created a Federal-State Joint Board to determine what services should be included in "universal service." In selecting these services, the Joint Board and the Commission were to consider the extent to which the services "are essential to education, public safety and health," "have through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers," "are being deployed in public telecommunications networks by telecommunications carriers," and "are consistent with the public interest, convenience and necessity." Although the Act specifies that "universal service is an evolving level of telecommunications services," the Joint Board's recommendations, adopted by the FCC in 1997, have not been updated since. Universal service includes:

- the ability to place and receive telephone calls
- touch tone dialing
- single party service (as opposed to a shared, multi-party line)
- access to emergency services
- access to operator services
- the ability to place long distance calls
- the ability to turn off long distance calling
- directory assistance

The Universal Service Fund (USF) has four programs, including the High-Cost fund. The goal of the High-Cost fund is to ensure that consumers in all regions of the nation have access to and pay rates for telecommunications services that are reasonably comparable to those in urban areas. The net goal of the program is to keep telephone service affordable for customers in areas where, absent the subsidy, telephone service would be dramatically more expensive than the national average. The complex system of fees, surcharges and subsidies supports telephone companies in rural and remote areas.

Currently, all telecommunications companies that provide service between states, including long distance companies, local telephone companies, wireless telephone companies, paging companies, and payphone providers, are required to contribute to the federal Universal Service Fund. Carriers providing international services also must contribute to the Universal Service Fund. Telecommunications companies contribute to one central fund, which in turn contributes to the High-Cost and the three other funds.

The Telecommunications Act of 1996 reflected an effort to deal with both the historic monopoly regulation of telecommunications services, evolving new telecommunications technologies, economic trends, and political realities. The regulatory system and protocols that have evolved from that Act are extremely complex. They beg for reform in a manner that is consistent with the goals of the Act, yet which are also flexible enough

to deal with both current and as yet unknown new technological developments in information and communications technologies, and changing resident demographics.

The latter is evident in states like Virginia, which have both large and medium sized urban hubs, with substantial populations of unserved and underserved rural residents. One of the outcomes of the escalation of housing prices in the first half of this decade was the phenomena of "drive til you qualify" among home buyers. Because of the rapidly escalating costs of homes in urban and suburban areas, the demand for affordable homes lead to more rapid building of new homes in more rural areas where land prices remained more modest.

The demographic impact becomes very evident simply by driving along a major interstate highway during a weekday. For example, if you drive west on route 66 from Washington DC you will see more and more park and ride lots filled with more cars every year along its exits, all the way out to Interstate 81, and up and down nearby parts of I-81 as well. Most of those cars belong to workers commuting to office jobs in the Washington DC area, and many of them live in homes where only land line voice service is available.

The phenomenon is also occurring on other spokes out of Washington DC as well as major urban areas such as Richmond and the Norfolk area. Homes in many midsized Virginia cities and towns, such as Winchester, Roanoke, Harrisonburg, Charlottesville, also became more expensive during the escalation of housing prices in the first half of this decade. As a result many homeowners also moved further out from their jobs in those urban centers as well.

Many of those workers would be able to telecommute if high speed broadband services were available to them. Increasingly, the vehicle that provides such services can or does already have the ability to provide voice communications. The number of home-based businesses is also increasing nationally, and they also are moving into rural areas for the same reasons as other homeowners. According to IDC, a national research firm, there are between 34.3 million and 36.6 million home office households in the United States alone.

At least 18 million are home-based businesses, according to U.S. Census figures. They include Internet-centric businesses, such as the millions of eBay Power Sellers who derive all or most of their income from Internet commerce, service businesses such as website designers, real estate agents, mortgage brokers, and millions of other home-based businesses. A recent survey of members of the American Institute of Architects revealed that home offices are the most popular special function room of home buyers for the third year in a row. From an economic development standpoint the access not

just to voice, but also to high speed broadband, is an increasingly critical factor for rural development.

The impact of existing telecommunications policies and infrastructure costs on this migration are significant. As an example, AHGA's President built a weekend cabin in rural western Shenandoah County in 2000. At the time the only available voice service available in the area was through traditional copper wire, and no advanced broadband service was available. The government spent an enormous amount of money to cut down trees and run telephone lines  $\frac{3}{4}$  of a mile along a wooded driveway to his home.

In 2005 cell phone service became available at his home. With the trend towards increased cell phone coverage and data and voice convergence, this medium may provide a far less expensive means to effect the goals of both the Telecommunications Act and the High-Cost Fund. Similar economies may be achievable through other technologies (satellite, cable), as well as new technologies under development, such as wire line technologies being tested in Manassas Park, VA.

All of these developments pose challenges for perfecting and improving not only the High-Cost Fund, but also the Universal Service Fund and the current structure of the Telecommunications Act. We believe that the efforts to reform the High-Cost Fund should take them into account. The goals of the Act and both the High-Cost Fund and the Universal Service Fund should be to provide, at the most affordable cost, both voice and high speed data to unserved and underserved consumers.

Most important are the unserved. This point was made by Senator Jeanne Shaheen (D-NH) and a bipartisan group of 10 senators in their recent letters asking the Federal Communications Commission, the Commerce Department, and the Agricultural Department to put serving unserved communities at the top of the list when doling out billions in economic stimulus grant money.

New technologies and demographic trends will lead to more choices in the future. Telecommunications policies should focus most on how to deliver both voice and high speed data to as many of the unserved as inexpensively possible. The policies should not be aimed at protecting either particular technologies or types of providers. This suggests both a review of current and potential contributors to the funding base, such as wireless and voice-over-internet, and the allocation of funds through the intercarrier compensation system.

The policies should also recognize that the Telecommunications Act, the High-Cost Fund, and the Universal Service Fund are not the only components of the solution. For example, the funding in the Stimulus Program for broadband infrastructure investment

to better serve rural and underserved areas will also in many ways support the goals of the Telecommunications Act, the High-Cost Fund, and the Universal Service Fund, as may other future federal programs or tax policies. The policies should also allow for innovative regulatory approaches, such as reverse auctions with appropriate requirements, as a means of allocating funds under the Universal Service High-Cost program. Given the growing importance of combined voice and data communications to the nation's consumers, it may also be time to ask whether broader-based taxpayer funding for the High-Cost Fund may be justified. A broader funding source may be a better alternative than relying entirely on cross-subsidies from various members of the communications subsector as it may be defined in the future, and may also reduce the political challenges of improving the High-Cost fund.

For these reasons we urge the Subcommittee on Communications, Technology, and the Internet to consider all of these factors in crafting ways to improve the High-Cost Fund.

237

**Lynn Starr**  
Vice President – Federal Relations  
Qwest Communications International, Inc.

607 14<sup>th</sup> Street NW  
Suite 950  
Washington, DC 20005  
202.429.3125



April 22, 2009

The Honorable Henry A. Waxman  
United States House of Representatives  
Committee on Energy and Commerce  
2125 Rayburn House Office Building  
Washington, DC 20515-6115

Re: House Committee on Energy and Commerce, Subcommittee on Communications,  
Technology, and the Internet Hearing on Universal Service: Reforming the High-Cost  
Fund

Dear Chairman Waxman:

Attached is a letter from Steve Davis, Senior Vice President, Public Policy and Government Relations at Qwest, responding to the written questions you provided from Representative Mike Rogers pertaining to the above-referenced matter.

Sincerely,

A handwritten signature in cursive script that reads 'Lynn Starr'.

Attachment

**Qwest**  
1801 California Street, 52<sup>nd</sup> floor  
Denver, Colorado 80202  
Phone 303 896-4200  
Facsimile 303 244-0958  
PCS 720-203-4200

**R. Steven Davis**  
Senior Vice President  
Public Policy and Government Relations



April 22, 2009

The Honorable Michael Rogers  
United States House of Representative  
133 Cannon House Office Building  
Washington, DC 20515

Re: House Committee on Energy and Commerce, Subcommittee on Communications,  
Technology, and the Internet Hearing on Universal Service: Reforming the High-Cost  
Fund

Dear Representative Rogers:

This letter provides responses to your questions provided to Qwest by Chairman Waxman regarding reform of the Universal Service High-Cost Fund. As requested, I am providing the text of the questions posed as well as my responses.

***Question 1:** It is critically important to reform USF to make it more efficient and to direct its funding to areas of greatest need. I'm excited about the potential for new 4G wireless technology to be part of the solution in bringing broadband to unserved areas. In addition to person-to-person communications, experts are predicting that 4G will drive wireless communications between tens of billions devices. While device-to-device communications will enable all kinds of innovative capabilities for consumers and businesses, USF cannot subsidize all of this. How can we best reform USF to encourage the development of new technologies but without fueling an exponential expansion of the USF?*

**Response:** Any reform of the high-cost fund should focus first and foremost on enabling universal access to affordable telecommunications service in high-cost areas. And, if Congress determines that broadband deployment should be supported by the USF, universal access must be the grounding principle of that program as well. While staying focused on the core purpose of universal access, the high-cost program can still encourage development of new technologies by remaining neutral with respect to the type of carrier providing service and the type of technology deployed in its distribution of support. But, high-cost support distribution that is company and technology neutral should not subsidize competition. It is critical to the success of the USF that the inordinate subsidies being provided to wireless companies are ended, and any subsidies provided are proven efficient either through a reverse auction process or cost analysis. Subsidizing multiple carriers in an area where it is uneconomic for even one carrier to provide service is at cross purposes with the goal of universal access to telecommunications or broadband service.



The Honorable Mike Rogers  
U.S. House of Representatives  
April 22, 2009  
Page 2

Further, universal service support for broadband should be to aid broadband deployment to unserved areas, should not provide on-going operational subsidies and should not subsidize competition or build duplicate networks. Any provider that meets certain pre-established service quality and pricing standards should be permitted to bid in a competitive bidding process that would award broadband deployment support to the lowest qualified bidder.

*Question 2: In your opinion how many competitors in a marketplace constitute healthy competition?*


**Response:** The answer to this question varies considerably by product and geographic market. But, as mentioned above, Qwest does not support the use of federal USF to promote competition. In order to achieve the goal of universal access to affordable telecommunications services, USF is intended to subsidize the deployment and maintenance of telecommunication facilities where such deployment and maintenance would not otherwise be economic. Under such circumstances, it is wasteful and poor public policy to subsidize multiple providers.

*Question 3: Michigan is consistently a donor state within the USF system, how can the USF system be reformed to make payments across states more equitable?*

**Response:** With respect to the existing high-cost mechanism for distributing support to "non-rural" carriers, the current use of statewide average costs for distributing support should be eliminated. Instead, as Chairman Boucher and Congressman Terry proposed in their 2007 USF reform bill, the support should be re-targeted to individual high-cost wire centers. Under the current system, even if a carrier serves several high-cost areas in a state, if its average costs statewide do not exceed the national benchmark, no high-cost support is available for that carrier in that state. As a result, today, many of the nation's most sparsely populated communities served by "non-rural" ILECs, like Qwest, receive no federal high-cost support. The current use of statewide average costs to allocate high-cost support assumes that a carrier's rates in low-cost urban areas can subsidize its rates in high-cost areas. But, competition today in urban areas no longer allows this subsidization. In order to fairly allocate support to high-cost areas across the states, and to enable reasonably comparable rates and services in high-cost and rural areas to those in urban areas, the unrealistic reliance on now non-existent implicit subsidies from urban rates must be eliminated, and support to high-cost areas must be tied directly to the costs of providing service in those areas.

Please let me know if you have further questions regarding reform of the high-cost universal service program. Thank you for your attention to this important issue.

Sincerely,

  
R. Steven Davis  
Senior Vice President  
Public Policy and Government Relations  
Qwest Communications International Inc.



Joel E. Lubin  
Vice President -- Public Policy  
AT&T Services, Inc.  
1120 20<sup>th</sup> Street, NW -- 4<sup>th</sup> Floor  
Washington, DC 20036  
T: 202-457-2118  
F: 202-457-2058

April 22, 2009

The Honorable Henry A. Waxman  
Chairman  
Committee on Energy and Commerce  
United States House of Representatives  
2125 Rayburn House Office Building  
Washington, D.C. 20515-6115

Dear Mr. Chairman,

Thank you for your letter of April 1, 2009, containing written questions for the record in connection with my recent testimony before the Subcommittee on Communications, Technology and the Internet concerning "Universal Service: Reforming the High Cost Fund."

Enclosed are my answers, which are formatted and filed in accordance with the instructions provided.

Thank you for providing us with the opportunity to participate in this significant proceeding.

Sincerely,

A handwritten signature in cursive script that reads "Joel E. Lubin" followed by a stylized flourish.

cc: Earley Green

**Universal Service: Reforming the High Cost Fund  
Hearing before the Subcommittee on Communications, Technology and the  
Internet, House Energy and Commerce Committee  
March 12, 2009**

**Questions for the Record from the Honorable Michael J. Rogers  
to Joel E. Lubin, AT&T Services, Inc.**

1. It is critically important to reform USF to make it more efficient and to direct its funding to areas of greatest need. I'm excited about the potential for new 4G wireless technology to be part of the solution in bringing broadband to unserved areas. In addition to person-to-person communications, experts are predicting that 4G will drive wireless communications between tens of billions devices. While device-to-device communications will enable all kinds of innovative capabilities for consumers and businesses, USF cannot subsidize all of this. How can we best reform USF to encourage the development of new technologies but without fueling an exponential expansion of the USF?

**RESPONSE:**

Your concern goes to the heart of the issue. The existing high-cost support mechanisms were not designed to encourage the universal deployment of broadband services. Rather, they were designed to maintain affordable POTS service over traditional narrowband networks. Unsurprisingly, therefore, the existing mechanisms have neither encouraged the development of new technologies, such as universal broadband deployment, nor contained the size of the fund; rather, existing policies have allowed the fund's unprecedented expansion.

Policymakers should, therefore, structure the fund to drive broadband infrastructure deployment and availability of broadband Internet access to those areas that truly need them, while also ensuring cost control and accountability.

Specifically,

1. The Federal Communications Commission ("Commission") should transition the current high-cost support mechanisms to a new *Broadband Incentive Fund* (for fixed networks) and a new *Advanced Mobility Fund* (for mobile wireless networks), which would collectively support the voluntary deployment and offering of new technologies.
2. The Commission should structure the Broadband Incentive Fund to facilitate investment in the infrastructure necessary to provide fixed-location broadband Internet access services.

- a. Costs would be contained through the use of a competitive application process to select a fixed location provider (both wireline and fixed wireless) to deploy and offer the supported broadband Internet access service for a specified period.
  - b. This fund should receive an infusion of new dollars in an amount to be determined by the Commission that would depend on both the parameters of the broadband service to be offered and the deployment schedule. And, this new infusion should be supplemented by transitioning funding from the current high-cost mechanisms to the Broadband Incentive Fund.
3. The *Advanced Mobility Fund* would immediately make project-based funding available for the deployment of mobile wireless broadband and voice capabilities in unserved areas. This fund should be operated along the same parameters as the Broadband Incentive Fund, and should also receive an infusion of new funding in an amount to be determined by the Commission. That said, legacy funding going to wireless competitive eligible telecommunications carriers (ETCs) should continue to be capped as the Commission ordered last year and, thereafter, there should be an aggressive and systematic transition mechanism to shift all legacy wireless funding to the Advanced Mobility Fund.
  4. High access charges are another form of universal service support for infrastructure recovery. Access charges do not exist in a broadband Internet access or VoIP world, but revenues are still needed to provide necessary incentives for the deployment of broadband infrastructure. Access reform is thus needed to establish more stable sources of universal service support and ultimately to remove disincentives for the deployment and/or marketing of broadband Internet access and broadband-enabled VoIP services in rural America.

In this way, we can reform the USF to encourage the development of new technologies without exponentially increasing the size of the fund.

For more information on these issues, please refer to AT&T's April 17, 2008, July 17, 2008, and November 26, 2008 submissions to the Commission.

2. **In your opinion how many competitors in a marketplace constitute healthy competition?**

**RESPONSE:**

Only the marketplace can determine what level of competition will be sustainable in any particular geographic area with respect to any particular service or services. That said, universal service policy can either assist or distort market-driven dynamics. To ensure that policy does the former and not the latter, universal service support for broadband deployment should only be provided to one provider. Any universal service support to encourage the deployment of broadband services should not be provided in areas where an existing competitor or competitors offer broadband Internet access services. Indeed, it

would be an inappropriate use of limited public funding to violate basic norms of competitive neutrality and distort the marketplace in unpredictable ways—two results almost certain to follow from funding multiple, duplicative providers.

**3. Michigan is consistently a donor state within the USF system, how can the USF system be reformed to make payments across states more equitable?**

**RESPONSE:**

AT&T shares your concerns both regarding the size of the federal universal service fund as well as with the continuing perception that USF support funds are distributed among states in a manner disproportionate to the contributions received from states. First, we note that the phenomenon is the consequence of intra-state demographics and statewide cost-averaging policies. Many so-called “donor” states, such as Michigan, Texas, and California, in fact have vast amounts of rural and non-urban areas. Yet, these donor states have significant concentrations of urban populations such as Detroit, Lansing, Dallas, Houston, Los Angeles, and San Francisco. These urban populations, in turn, artificially skew statewide cost averages down and result in potential imbalances in the manner in which funds are distributed. In our April 17, 2008 filing with the Commission, AT&T proposed a transition from the existing high-cost support mechanisms to broadband incentive mechanisms that will help to address this issue.

Second, in the context of access reform, AT&T has proposed a national comparability benchmark mechanism to ensure rate comparability among the states so that the customers of carriers operating in states that have acted to lower intrastate access charges, establish state universal service high-cost funds, and/or increase local rates do not shoulder the cost of the access shift for carriers in other states that have taken none of these steps. The purpose of the national comparability benchmark is to equitably apportion responsibility for the rate rebalancing needed to achieve unified terminating intercarrier rates among end users, carriers, states, and this Commission. It is also intended to ensure fairness to states that already have taken significant steps to reduce intrastate access charges, increase end-user rates, or provide explicit universal service funding.

MASSACHUSETTS  
40 main st, suite 301  
florence, ma 01062  
tel 413.585.1533  
fax 413.585.8904

WASHINGTON  
501 third street n.w., suite 875  
washington, dc 20001  
tel 202.265.1490  
fax 202.265.1489



The Honorable Mike Rodgers  
Congress of the United States  
House of Representatives  
Committee on Energy and Commerce  
2125 Rayburn House Office Building  
Washington, DC 20515

April 22, 2009

**Re: Responses to written questions for the record, for the hearing on Universal Service High Cost Fund Reform, March 12, 2009**

Dear Mr. Rodgers,

Below are answers to your written questions for the record. Please contact me if you have any further questions.

*Question 1: It is critically important to reform USF to make it more efficient and to direct its funding to areas of greatest need. I'm excited about the potential for new 4G wireless technology to be part of the solution in bringing broadband to unserved areas. In addition to person-to-person communications, experts are predicting that 4G will drive wireless communications between tens of billions devices. While device-to-device communications will enable all kinds of innovative capabilities for consumers and businesses, USF cannot subsidize all of this. How can we best reform USF to encourage the development of new technologies but without fueling an exponential expansion of the USF?*

While advanced 4G wireless services such as WiMax and LTE promise to lower last-mile deployment costs in rural areas, these wireless services still need to carry traffic back and forth to the Internet backbone. The market for these so-called "middle-mile" or "backhaul" services is highly concentrated, and in most rural areas, is a monopoly.

The biggest challenge facing any company wishing to get into the rural wireless broadband market is the cost of this backhaul data transport. As Clearwire CTO John Saw recently said "[i]t's what I call the elephant in the room that nobody talks about... The backhaul is probably the highest cost of deploying the network." New entrants can put up wireless antennas, but they have to be able to carry Internet traffic back-and-forth. In many cases, the only available transport option is high-capacity lines offered by the local incumbent phone company. But even though these markets are effective monopolies, the FCC over the past several years has largely deregulated this market, removing all dominant carrier regulations on the high-capacity

MASSACHUSETTS  
40 main st, suite 301  
florence, ma 01062  
tel 413.585.1533  
fax 413.585.8904

WASHINGTON  
501 third street nw, suite 875  
washington, dc 20001  
tel 202.265.1490  
fax 202.265.1489



enterprise broadband connections, and severely reducing oversight into the so-called “special access” market.

Thus, even if the USF were to pay to build last-mile LTE or other broadband facilities, the owners of these lines might still require ongoing support due to the monopoly prices in the backhaul market.

Thus, the dream of universal broadband will require that the FCC take a close look at the special access, middle-mile and enterprise transport markets. The Commission’s past deregulatory actions in these markets has been a disaster for competition. Special access rates of return are above 700 percent in some markets, and there is little data to suggest competition is any more effective in the enterprise market.

Recent technology advances have enabled carriers to use microwave technologies to transport backhaul data. However, these high-frequency transmissions (e.g. Clearwire uses 18 and 24 GHz frequencies) require licensed spectrum and are point-to-point and thus subject to geographic constraints and environmental interference. In the cases where unlicensed spectrum is used for backhaul (such as the 5.8GHz band) the potential for interference limits the reliability of these links.

Thus, though wireless backhaul will help, it does have its limitations. But the FCC can do its part to reduce these limitations. The FCC should expand the availability of unlicensed spectrum, which will help solve this backhaul issue. The Commission’s recent move to open up the unassigned television channels (also known as “white spaces”) for wireless broadband is a great leap forward. However, the Commission may want to consider flexible higher-power uses of whitespaces in rural areas, which will enable this spectrum to be used for backhaul. The Commission will also need to continue its innovative hybrid “license-lite” approach adopted in the 3.65GHz spectrum orders. Such an approach is ideally suited for data transport in rural areas.

Ultimately, turning the dream of universal broadband into a reality will require aggressive FCC and Congressional action to lower barriers to entry for new technologies. This will require the tackling the problem on multiple fronts. The FCC needs to revisit the recent enterprise broadband forbearance orders, which improperly analyzed this market at the national level. The FCC should also revisit and reengineer its’ special access pricing flexibility regime, and impose some pricing discipline in this monopoly market.

MASSACHUSETTS  
40 main st, suite 301  
florence, ma 01062  
tel 413.585.1533  
fax 413.585.8904

WASHINGTON  
501 third street nw, suite 875  
washington, dc 20001  
tel 202.265.1490  
fax 202.265.1489



*Question 2: In your opinion how many competitors in a marketplace constitute healthy competition.*

A central premise in competition analysis is summed up by the quip, “four is few, six is many.” In other words, when a market has less than the equivalent of six equal-sized competitors, the market just doesn’t function properly. Prices are well above cost-plus-reasonable profit; investment is withheld until absolutely needed; innovation is actively discouraged; and consumer welfare suffers. And this is especially the case in the facilities-based bundled-product world of communications services, where the vertically integrated duopoly phone and cable companies go to great lengths to avoid head-to-head competition on broadband access.

Regulators rely on various tools for assessing market power, such as the historical relationship between marketshare and market power. The Department of Justice (DOJ) measures this relationship by calculating the Herfindahl-Hirschman Index (“HHI”), and comparing that against the DOJ Merger Guidelines. The Department of Justice considers a market with fewer than 10 equal-sized firms to be concentrated (i.e. HHI=1,000). It considers a market with fewer than the equivalent of approximately 5.5-equal sized firms (HHI = 1800) to be “highly concentrated.” Markets with an HHI between 1000 and 1800 are considered “moderately concentrated.” These thresholds have been chosen based on theory, empirical evidence and experience with the exercise of market power.

Thus, for a generic market to be likely to exhibit “healthy competition”, there will need to be between 6 and 10 *roughly equal sized* competitors. However, in networking industries, the industry structure of high fixed costs and other barriers to entry preclude having this many competitors. This is especially the case in rural and insular areas, where fixed costs are so high that even one competitor is uneconomical. Markets such as these must be overseen to ensure consumer welfare is protected.

*Question 3: Michigan is consistently a donor state within the USF system, how can the USF system be reformed to make payments across states more equitable?*

Making the USF system more equitable across states may be a challenge, as some states are more rural than others. Fixes to the contribution system such as a numbers-based or capacity-based system will do little to impact this inequity. However, reforming the distribution system can address this issue.

Currently, states whose rural areas are primarily served by “non-rural” carriers (i.e. large carriers with more than 100,000 customers, such as the Regional Bell Operating Companies AT&T, Qwest and Verizon, or the large price cap carriers such as Windstream and CenturyTel) receive relatively low amounts High Cost Fund support for their intrastate local loop costs. The current system for supporting these carriers in each of their operating states is based on a comparison of the statewide average loop cost to the national average loop cost. If this statewide average loop cost is roughly in the top 20 percent, then the carrier receives some support from the High Cost



MASSACHUSETTS  
40 main st, suite 301  
Florence, ma 01062  
tel 413.585.1533  
fax 413.585.8904

WASHINGTON  
501 third street nw, suite 875  
Washington, dc 20001  
tel 202.265.1490  
fax 202.265.1489



Model program. These larger carriers also receive support for their Interstate loop costs from the Interstate Access Support program.

These non-rural carriers have criticized this support method as unfairly penalizing states that have very high costs rural areas that are "averaged out" by low cost urban areas. This criticism is not without merit. However, in supporting this system the FCC has stated that these non-rural carriers are able to benefit from economies of scale, and that the High Cost Model system is designed to have states use their own universal service support funds to offset the high intrastate loop costs. This debate is the subject of the *Qwest I* and *Qwest II* court remands, currently under reconsideration at the FCC.

We believe that a rational modernized Universal Service Fund support system can cut through this debate, and target funding to the hyperlocal areas where it is most needed, which will bring more equity between states. Support should be awarded on a disaggregated census block basis. Support should be based on a lines total forward looking costs and the revenue earning potential of that line. We feel such a support system, which recognizes the triple-play phone/TV/Internet revenue earning potential, will greatly reduce the amount of USF support needed by many lines, and the resulting savings can be diverted to funding broadband infrastructure buildout in the areas of the country that remain unserved.

Sincerely,

S. Derek Turner, Research Director  
Free Press, Washington Office  
dturner@freepress.net

Thomas J. Tauke  
Executive Vice President  
Public Affairs, Policy and Communications



140 West Street, Floor 29  
New York, NY 10007  
Phone 212 395-1032

1300 I Street NW  
Suite 400 West  
Washington, DC 20005  
Phone 202 515-2404  
thomas.j.tauke@verizon.com

April 16, 2009

The Honorable Mike Rogers  
United States House of Representatives  
Committee on Energy and Commerce  
Subcommittee on Communications, Technology,  
and the Internet  
2125 Rayburn House Office Building  
Washington, D.C. 20515

Dear Congressman Rogers:

I am responding to your written questions following my appearance before the Subcommittee on March 12, 2009, at the hearing entitled "Universal Service: Reforming the High-Cost Fund." Verizon appreciates the Subcommittee's interest in the high cost program, and I welcome the opportunity to respond to your questions.

Responses:

1. **It is critically important to reform USF to make it more efficient and to direct its funding to areas of greatest need. I'm excited about the potential for new 4G wireless technology to be part of the solution in bringing broadband to unserved areas. In addition to person-to-person communications, experts are predicting that 4G will drive wireless communications between tens of billions of devices. While device-to-device communications will enable all kinds of innovative capabilities for consumers and businesses, USF cannot subsidize all of this. How can we best reform USF to encourage the development of new technologies but without fueling an exponential expansion of the USF?**

Verizon shares your enthusiasm for the potential of 4G wireless technology. This is the wireless technology of the future, and it promises great things. Last year Verizon spent \$9.4 billion in the 700 MHz auction to help us deploy our 4G Long Term Evolution (LTE) network, which ultimately will help bring high-speed wireless broadband to consumers across the nation, including those in some underserved regions.

You are also right that in reforming universal service we must carefully balance the demands of the fund with what consumers can afford to pay for the USF. To strike the right balance we first need to set an overall budget, or a cap, for high cost universal service support and then retarget support to those areas and for those services where it is needed.

The Honorable Mike Rogers  
 April 16, 2009  
 Page 2

For wireless carriers, the best way to make sure the USF provides the right amount of high cost support is by competitive bidding. Competitive bidding is the standard way that government purchases goods and services critical to important national priorities, such as military equipment, transportation infrastructure improvements, and telecommunications and IT services for federal agencies. Competitive bidding is a better approach than cost-based support to wireless providers. It is difficult – and always contentious – to identify a company’s “costs.” Any new cost-based support system for wireless would result in endless litigation and would consume the industry over needless debates about which costs should “count” and which ones should not. USF reform must reward efficient providers and give consumers the most service for the least cost.

2. **The FCC’s high-cost rules were originally conceived to provide telecommunications services in places where high costs made it uneconomic for even one carrier to provide service. As this program has expanded to subsidize multiple networks in a single market, we now have multiple examples of government subsidized competitors in effect spending taxpayer dollars to compete against one-another. In your opinion how many competitors in a marketplace constitute healthy competition?**

There are factors other than the number of competitors that determine whether or not a market is functioning effectively. When I represented Northeast Iowa in Congress, I’d often note that most of the communities in my district had only one fast food restaurant, usually a Hardee’s, a McDonald’s, or a Wendy’s. The presence of only one fast food establishment in a community is not an indication that the community lacks a healthy, competitive market. Rather, it indicates that demand for fast food in that community supports only one restaurant.

In the communications market, the vast majority of the consumers in the country are served by at least two wireline providers and multiple wireless providers. Surely, that level of competition constitutes “healthy competition.” And since most carriers provide similar services and like prices across both urban and rural areas, the discipline of competition in the larger marketplace benefits those areas with fewer carriers.

In cases where a subsidy is required to provide appropriate communications services to consumers, the government should, I believe, usually support a single wireline carrier on the basis of cost and determine support for a single mobile wireless carrier through a competitive bidding process. This will ensure that consumers will have access to both fixed and mobile communications services.

With that said, let me emphasize the most important point: the universal service fund needs significant reform. Under today’s rules, the fund subsidizes multiple CETCs in many areas. In addition, under today’s system wireline providers are subsidized based on lines and wireless carriers receive support based on 1) the number of handsets, and 2) the cost of the wireline provider to deliver service. The result has been excessive subsidization to wireless carriers. That means consumers across the nation are paying to

The Honorable Mike Rogers  
April 16, 2009  
Page 3

subsidize multiple wireless carriers to provide service in allegedly high cost areas. Something is wrong with this picture.

A competitive bidding system for support to wireless providers, as discussed in response to question No. 1 above, would help address this issue. Ultimately, however, the most important factor is that the high cost program is structured to get support to areas where it is truly needed and that the USF distributes the funding efficiently in those areas. Consumers pay for universal service through charges on their bills, and they have the right to expect that their resources will be used wisely. In most areas where providers receive high cost universal service subsidies there are other providers operating without any support at all, so the number of competitors in an area does not correlate with the number of universal service recipients. The presence of a competitor that is willing to serve without subsidy is also a good sign that we may be paying too much for universal service in that area.

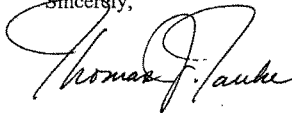
**3. Michigan is consistently a donor state within the USF system; how can the USF system be reformed to make payments across states more equitable?**

The nature of universal service is such that consumers in lower cost areas of the country subsidize service in higher cost areas. There is, however, a lot of waste and many inequities in the current system. For example, more than half of all high cost support from one program for "non-rural" carriers goes to providers in just one state. This is not rational. A better approach is to first cap the overall high cost universal service fund and then retarget support where it is truly needed in order to provide consumers with affordable services. For non-rural carriers, support should be distributed on the wire-center level, and statewide averaging of costs should be eliminated. The new economic stimulus grants for broadband infrastructure will also relieve some of the pressure to use USF high cost support for all of the network investment necessary to expand broadband services.

\* \* \*

If you have further questions, please contact me.

Sincerely,



Thomas J. Tauke